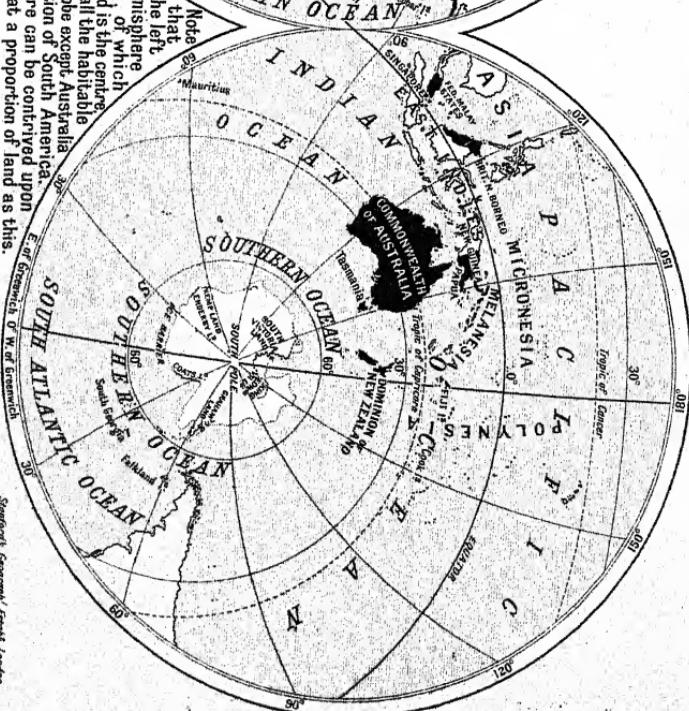


THE NAVY OF TO-DAY

MAP OF
THE WHOLE WORLD OF TRADE
SHOWING
THE PERMANENT SEA-CENTRALITY OF ENGLAND



Note
that
the left
hemisphere
here,
of which
England is the centre,
contains all the habitable
land of the globe except Australia
and a small portion of South America.
No other hemisphere can be conceived upon
the Earth having so great a proportion of land as this.

THE NAVY OF TO-DAY

BY
SIR GEORGE ASTON

With an introduction by
Admiral of the Fleet

EARL JELLIFFE

WITH A MAP



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INTRODUCTION

IN this volume Sir George Aston writes of impressions which he gained of the Navy of to-day during a cruise in the Atlantic Fleet, and then gives his reflections on the vital importance of that Navy to the Empire and to the world generally.

Sir George is very specially qualified for the task to which he has applied himself. In addition to being a keen student of naval history, he acquired, in the earlier years of his service afloat, an intimate knowledge of staff and executive work. In later years his close study of amphibious warfare gave him a great width of vision to which his writings bear eloquent testimony. Finally his recent cruise with the Fleet has enabled him to compare the Navy of the last century and of pre-war date with the Navy of to-day, and, under the changed conditions resulting from the Washington Conference, to give his reflections on the capacity of our present fleet to fulfil its great purpose of securing freedom of sea communications to the British Empire.

The author writes in Part I of the immense changes wrought in the *materiel* of the sea service by the march of scientific discovery, accelerated by war experience. At no previous period in our history have such radical alterations been effected in so short a period, and it is only natural that they should have exercised a marked influence on naval tactics. Sir George Aston touches upon this subject in some interesting remarks which I commend to the reader, especially to the civilian reader, of this book.

He tells us that the one thing that has remained constant

is the spirit that pervades a ship's company. Great as is the value of first-rate material, there can be no doubt that the greatest asset of all in fighting forces is the spirit animating the personnel, and as one who had the honour and privilege of seeing that spirit during years of war and under most trying conditions, I can say with the utmost confidence that if any change has taken place in this respect since I first went to sea fifty-two years ago, that change has been most distinctly for the better, splendid as was the spirit in 1874.

Of the subjects touched upon by the author in Part II there are some to which attention should specially be drawn. The first is the strength of our Navy compared with others. This question is treated under two headings (*a*), that of the security of our own widely-scattered Empire, and (*b*) that of maintaining a general peace. The author under the first heading points to our ever-increasing dependence upon imports for the material life in Great Britain and to the fact that the sea interests of the Empire to-day are greater than ever before in our history ; he expresses a doubt whether the weakening of our Navy has not gone too far. He mentions that in respect to vessels other than those fit to take a place in the line of battle we have never adopted a numerical standard of strength in relation to ships of other Powers. This very important point is apt to be lost to sight when making comparisons of relative naval strength. It should be an axiom that the absolute dependence of the British Empire on sea communications necessitates a system of protection of those communications based upon their importance and length, and not upon the cruiser strength of any other nation. If proof is needed of this fact it is to be found in the injury inflicted on allied sea-borne trade during the Great War, first by hostile cruisers, and later by disguised armed merchant ships and by sub-

marines. It is equally to be found in the history of the Navy during the Napoleonic and other wars. Our immense pre-war strength in vessels of the commerce-protector type, as compared with that of our enemies, did not save us from heavy losses from these causes, and the only safe system is to assign to war trade-routes sufficient protection against any possible enemy and to base our requisite strength on this requirement.

Under the second heading the author discusses the influence of the British Navy as a guarantee of a world peace. His remarks on the work of the Navy and its sister service the Mercantile Marine in assisting our allies during the war are illuminating, as are also the comments which he makes on the discussions which took place during the consideration of the Geneva Protocol of 1924, when the British Navy was clearly looked upon as an instrument for world peace. The chapter devoted to Sea Force and Sea Law will be read with interest. The author, in his preface, acknowledges with gratitude the use which he has made of Commander Bowles's valuable book, "The Strength of England," in this connection. That book and Sir George Aston's volume should be read and studied by every citizen of the British Empire.

In the chapter on Sea-Power and Air-Power the author mentions the functions of the two great services, the Royal Navy and the Royal Air Force. He very rightly lays emphasis on the fact that there is as yet no sign that the advent of air-power will in any way minimise the importance of sea communications to the Empire. The contrary assumption, giving as it does an excuse for reductions in our naval strength, is a pernicious and highly dangerous doctrine. Sea transport is bound to remain, for many years to come, the method by which the trade of the Empire is carried on. Our great Mercantile Marine, without which

the late war could not have been won, is still the main artery through which our life-blood flows, and only ships can protect that artery except in relatively close proximity to our shores.

In the hope that perusal of this book will convince its readers of the supreme importance of a proper understanding in the functions of our sea services, I commend it heartily to the public.

JELLIFFE, A.F.

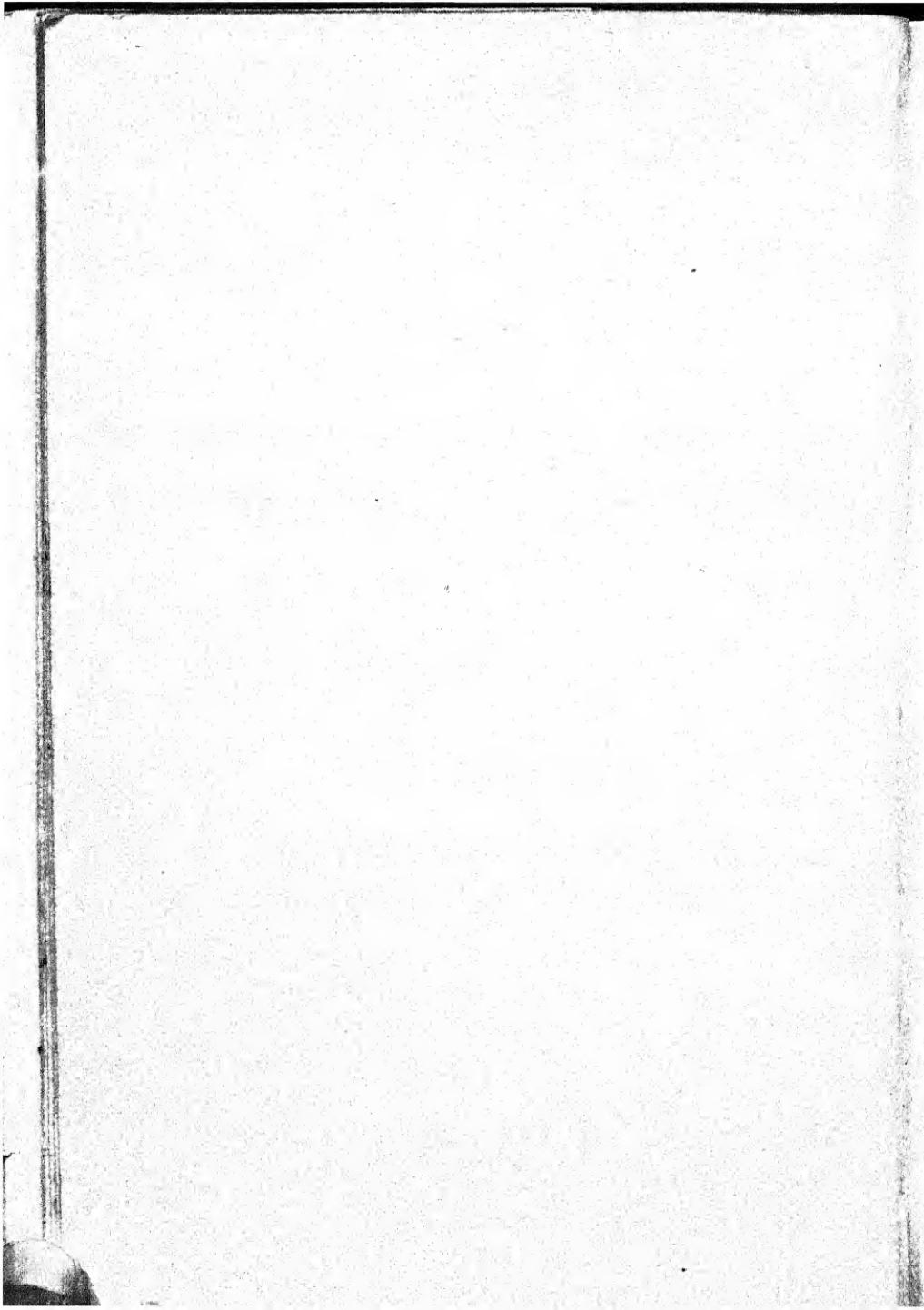
AUTHOR'S PREFACE

THIS little book owes its origin to an impression, formed recently in the mind of the author, that a large section of the public was in danger of being deluded into the belief that our Navy was no longer our "all in all," in comparison with other factors which make for our own security, and promote, over the whole world, the peaceful development of all nations on lines selected by themselves.

PART I contains the substance of a series of articles which appeared in *The Times*. *PART II* embodies some material which has already appeared in the *Nineteenth Century and After*, together with much that is new. The author's thanks are tendered to the respective Editors. The object in the first part has been to depict our sea-going Navy as a living force. The second part has been added to emphasise what that living force means to us, and to the world in general. Much use, in connection therewith, has been made of *The Strength of England*, by Commander G. Stewart Bowles, on whose shoulders has fallen the mantle of his father, Thomas Gibson Bowles, as an educator of his fellow-countrymen in matters upon which not merely their prosperity, but their very existence, depends.

G. G. A.

Woodford, Salisbury, 1927



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PART I
AT SEA WITH THE FLEET

“While the natural function of the sea is
to unite the peoples of the earth, the
function of the land is to divide them.”

The Strength of England.

THE NAVY OF TO-DAY

CHAPTER I

AMBASSADORS ALL

“WHY,” said a farmer friend to me, when discussing some Army manœuvres over his ground, “do they let those foreign officers come as spectators to spy out the land?” Tradition dies hard in our country districts. The bogey of “Boney” still lingers there, and with it the fear of invasion by foreign Armies. I suggested to him that we still have a Navy. “Navy?” said he; “the Navy is a washout.”

I recalled the time, now long past, when I served in the Fleet. The Navy was then looked upon by the whole nation as its “all in all.” Our vital need for freedom of sea communication was an issue, kept by consent out of party politics, with which neither the Press nor candidates for the votes of constituencies ever dared to tamper; and the greatest of Victorian poets went so far as to incite the “wild mob’s million feet” to “kick from their place” any statesmen in office who might venture to imperil our sea security. The principle was accepted that it was unsafe to gamble on the assumption that any foreign sea power was certain to remain friendly to us in all circumstances that might arise. The conversation from which I have quoted led to others, with all sorts and conditions of men, in town and country, and these conveyed to my mind the impression (I hope a false one) that we are losing what used to be called our “sea sense,” which carried us through the most critical periods of our history,

and that we no longer believe in the principle, embodied for centuries in the Articles of War which govern the Navy, that upon that Service, "under the good Providence of God, the wealth, safety and strength of the Kingdom chiefly depend." That statement cannot be reconciled with the views of those, like my farmer friend, who have come to the conclusion, for one reason or another, that the "Navy is a washout"; and are content to have it so.

My object will be to examine these views, and to depict our present-day Navy as a living force. I feel more competent to do so after having been given the privilege of spending some weeks in his Majesty's Fleet. I thus saw our Navy in its proper element, at sea, far removed from all controversies; anxious, it is true, about the future fate of those who cross the seas upon their lawful occasions (if those who dwell on shore should really lose their sea sense and follow false prophets), but strenuously engaged in training to make the utmost use of whatever material the nation may provide. And before embarking upon my task I should like to tender my thanks for the opportunities that were given to me to visit nearly every type of vessel now in commission—capital ships, cruisers, destroyers, submarines, a minelayer, and even (with certain reservations) an up-to-date aircraft carrier. I met with helpfulness everywhere. I was given the freedom of the Fleet, to be treasured above any such distinction on shore.

I learned my first lesson, about the more rapid depreciation of *materiel* which has resulted from experience of the Great War, immediately after I arrived at Portland on my way to join the Fleet. I noticed an object, just awash, blocking up one of the holes in the breakwater. It proved to be the old battleship *Hood*, bottom upwards, sunk in that position to close the passage. She was an up-to-date man-of-war in the Fleet which I last joined at

Portland a little more than twenty years ago. The new *Hood*, in which I spent some time at sea, could have dealt with such a vessel as the old *Hood* could have dealt with the old wooden *Implacable*, which fought at Trafalgar and is still afloat; thanks to the public response to Lord Beatty's appeal. A few details about the new *Hood*, built in response to German vessels of the *Graf Spee* class, which were not proceeded with after the battle of Jutland in 1916, will serve to mark the general nature of recent progress. She is the largest man-of-war afloat, and likely to remain so as long as agreements that have been arrived at between the principal sea Powers about the size of capital ships hold good. Her displacement is 41,000 tons, of which nearly 14,000 tons represent protective armour and 4,000 tons machinery. She carries 15-inch guns, and has ample space within for her crew of about 1,400 to live in comfort. I could rhapsodise about the "severity, delicacy, and lightness of curve" of her great masses as Charles Kingsley did about a foxhound. She is due for scrapping in 1941; a reminder that in 1931, four years hence, the scrapping of our older capital ships is due to begin, so we have to face the replacement of other classes of vessel before that date, unless we are content to depreciate our sea-power altogether and to justify the verdict of those who hold, with my farmer friend, that the Navy is a washout. It did not take me long to discover that some of our cruisers and destroyers, for instance, are nearly worn out, some having been patched up again after losing their bows, sterns, or other essentials from mine, torpedo, or gun-fire in the late war. By extensive scrapping and stopping new construction we gave the lead to the whole world in reduction of sea armaments between 1920 and 1923, when the number of our capital ships dropped from forty-two to twenty-two, while those of the

principal foreign sea Powers rose from forty-six to fifty. The figures for other classes are still more impressive.

Since it was obviously impossible for me to visit the whole of the seagoing Navy in the time at my disposal, it will be as well here to take note of the distribution of our different classes of vessel about the world. Our capital ships are now to be found only in home waters and in the Mediterranean. There are no adequate bases for them elsewhere. Although the sea is still all one, it is now divided into spheres of influence, if tonnage of capital ships, recently standardised, can be taken as a measure of such influence. The Western Atlantic and Eastern Pacific are the American spheres; the China seas the Japanese. Tonnage of cruisers has not been standardised. Ours are distributed, some with the capital ships, others on independent missions on all stations. Those with the capital ships are about half the size of the new (10,000 ton) class, which other Powers have and are building. In the operations which I witnessed there was an obvious need for cruiser-screens with battle squadrons, and vessels so employed cannot perform their functions if they are smaller (and therefore slower in a sea-way) than those of an opposing cruiser-screen. Cruisers on independent missions in distant seas must either be strong enough to fight or fast enough to avoid action. A long essay could be written on this subject alone. Several have been written, but it is enough to take note that in view of the distribution of the territory of the Empire, and the vital need to guard communications of all sorts at sea, our unique position has been recognised by the principal sea Powers as justifying special treatment (First Sea Lord in November, 1925).

Our destroyers are normally to be found only in home waters and in the Mediterranean, from whence some were recently detached in a hurry to China. We had news by

wireless while I was at sea of the launching of the first destroyer that we have built since the war. Some old war-worn destroyers were in sight. Amongst them I noticed the *Warwick*, which led the blockships into Zeebrugge nine years ago, and afterwards had her stern blown off at Ostend. Most of the others had had similar adventures, not likely to prolong their official "lives." We have submarines in home waters and the Mediterranean, and on the China Station, where we also have special small craft patrolling the new trade-routes. Our sloops and other craft are distributed over the distant stations. To the Fleet Air Arm I propose to devote attention later. It is the business of the naval advisers of the nation to make the situation clear about all these classes, and about the large auxiliaries that in these days are essential to efficiency. I do not propose to deal with high policy for the present, so I will pass to my experience of the *personnel*.

In the old days, a voyage from one port to another was a peaceful experience, affording a certain amount of leisure. In these days of strict economy ample value in training officers and men, and in testing ships and weapons, is obtained for all fuel that is expended. The work is incessant, by day and by night. Portions of every force at sea are allocated to take their part in plans and exercises, and scarcely an hour passes without some lesson being learned. It was so strenuous that physical exhaustion sometimes prevented my taking all the opportunities that were offered to me to witness the varied exercises. Even when in harbour there is little leisure time. To normal drills and training there were added social duties in foreign ports, involving much organisation. I saw as many as 400 people of a foreign town attending an afternoon entertainment given by a flag officer in a battleship, and I saw them all returning to the shore pleased with their exper-

ience, and better acquainted with the truth about our nation. I do not write only of entertainments by officers. At Algiers, not long ago, there were 14,000 landings of "ratings" from the Fleet. Their behaviour on shore can be judged from the fact that not a single case of trouble of any kind was given to the police, and the Prefect paid a special call to express to the naval authorities his admiration and thanks. There was practically no leave-breaking. Many friendships were made, and French soldiers and their wives were entertained on the lower deck by British petty officers.

It has been said that Admirals make the best ambassadors. If more were known about the effect of these visits to foreign ports by his Majesty's ships, the nation would be better able to realise the value of the peace-work of the Royal Navy in spreading throughout the world a spirit of good feeling, and of understanding of us and of truths that are nowadays sadly obscured by hostile propaganda. I can write from knowledge of France, Spain and Portugal. The effect is the same in all countries with coasts and harbours visited by the Navy, especially in the Far East, whence I have received up-to-date and reliable information to which I shall refer in due course. At the present moment about 34,000 of our naval *personnel* are policing the seas, and performing on foreign stations the diplomatic functions to which I have referred. Of these about 22,000 are in the Mediterranean, about 6,200 on the China station, about 2,000 on the East Indian, and 1,600 on the Africa station.

In succeeding chapters I will try to do justice to the spirit of the naval service as it impressed me on my return to a life not "on" several of his Majesty's ships (as the phrase runs on shore), but "in" them, as those say who look upon them as their homes.

CHAPTER II

CHANGES IN THE SERVICE

THE march of scientific discovery, accelerated by the impetus of war, has wrought radical changes in the sea service. Material has changed. Everything has been speeded up. Progress in wireless telegraphy and telephony has revolutionised speed of communication, of information, orders, and instructions. Gun and torpedo ranges have been increased beyond all expectation. The seagoing submarine, the submarine mine, and the appliances for dealing with these menaces to surface ships, have all been developed beyond recognition. The art of human flight, still in its infancy, already affects naval problems, both of strategy and of tactics. Education is more thorough and more widely distributed. Discipline is different. After a few hours in a man-of-war at sea I recognised that one thing has remained constant, the spirit that pervades a ship's company. That impression was constantly confirmed throughout the time that I spent in the Fleet, not only in one ship, but in all that I visited.

Whenever a member of the wireless staff of a ship has leisure to take in messages from the shore, touch is kept with what is happening at home. Amongst other things, we heard Mr. Baldwin address an audience in Birmingham. I will quote the most interesting passage, as we had it subsequently in *The Times*. It ran:—"Nor is there a difference between different classes. The real difference amongst men is between those who are prepared to give more than they get, and those who want to get more than they give." He added that the difference was to be found

between men whether they were dukes or greasers, and he advocated a policy of service. It struck me at the time, somewhat forcibly, that whatever the conditions may be on shore there is no better school than the British Navy for those who want to bring up their sons in the idea of giving more than they get. You cannot avoid it if you spend any length of time in a man-of-war. You absorb it in the atmosphere. You cannot help yourself. It is one of the unwritten "laws of the Navy."

I turn to certain changes in attitude in the Navy since last I served at sea, a quarter of a century ago. I think that the naval outlook has widened. There is more intimate touch with people in other walks of life on shore. There is more sympathy with and understanding of the other Services, as a product of better knowledge gained by war experience. There is more interest in matters outside the Services and outside the ship or squadron, without any lack of concentration upon the old ambition to make the ship the best in the squadron, the squadron the best in the Fleet, and the British Fleet the best in the world. With it all there is a better knowledge of public policy and of foreign affairs. What, in my earliest days at sea over 40 years ago, might almost have been described as contempt for the soldier and his methods—following some of the sea-precedents of the Napoleonic wars—has been turned by better knowledge into hearty appreciation, with a touch of admiration. Instead of scorning military methods, there is even a tendency to copy them. It is not only war experience that has brought this about ; it is due even more to the various combined courses where members of all three Services constantly meet and have opportunities of acquaintanceship and discussion. No Service, however, can gain true views of the real work of another by combined academic courses. They must see each other in their real work—

the Army in field operations, the Navy at sea. Here the progress has been most marked. Army officers are constantly to be met with in his Majesty's ships all over the world, especially when any particularly interesting operations are in progress, and naval officers see a good deal of the field training of troops. All this is very much to the good.

Another point that I noticed was the presence in some gun-rooms of R.N.V.R. midshipmen, spending about six months in the Fleet, and conspicuous for their red (in place of white) collar-patches. One, of whom I enquired, was doing this between Eton and Oxford, another between completing his schooling and embarking upon a career in the Law. I cannot imagine a better method of bringing the nation and its Navy together, and there is some need for this. I have noticed in the Navy, as I have said, more intimate knowledge of "shore-going folk" and their ways. I fear that the converse does not hold good. I think that the nation's knowledge of and interest in its Navy have decreased of late years. This is a strange phenomenon, which I can think of no circumstances to justify.

There is, I fear, no very close touch between all who follow the calling of the sea, whether in men-of-war or in merchant ships. This was not very good before the war. In the war itself it was thoroughly developed. I am afraid that it is not, and cannot be, kept up to the same high level of sympathy and understanding which was born of constant association in the same work. In time of peace the two sea careers are divergent. Each form of seaman has his own special work. Here I venture, in all humbleness, to make a suggestion. The Navy would benefit exceedingly by better knowledge of conditions that obtain in the Merchant Service, not only in liners which follow their appointed routes, but also amongst the wonderful seamen

of our tramp steamers, men full of expedients, steeped in responsibility and in the need for independent wisdom and judgement in emergencies. The Navy would benefit by better acquaintance with the conditions which obtain in such steamers at sea. It seems to me that there could be no better aid to co-operation with, or avoidance of collision with, craft of all natures met with on the high seas than knowledge of the actual conditions of life and of duty on board such vessels. The Navy, under normal conditions, has to, and does, rely for such knowledge upon the R.N.R. officers, if any, who happen to be serving for a time in H.M. ships, but this is a precarious source (I saw only midshipmen of the R.N.R. in the ships which I visited). Personal knowledge would be better, and I believe that some scheme for acquiring this could be devised. If a way can be imagined, I am certain that the will would be present. There is, it is true, a good deal of intersignalling between the two sea services, more than there used to be in my day, but this, though admirable as far as it goes, is a poor way of securing or of maintaining either reciprocal knowledge or reciprocal sympathy.

Having much to write of the Navy at sea, I should like first to try to remove a prevalent misapprehension about the sailor's life on shore. Old traditions die hard, and many years will probably pass before the legend of convivial and rowdy "Jack-tars" receives its final quietus. The seamen of the Navy of to-day are a sober, law-abiding body of men, comparing very favourably in these respects with other classes in the country. A large proportion are married, leading a steady family life and forming excellent householders. They take a great pride in their homes, usually in or near the naval ports, and many have purchased these homes out of their savings. They are the best of citizens, having a stake in the country, and they apply on

shore the lessons in social service, and consideration of common interests, which they have learned at sea in H.M. ships. I could furnish much evidence in support of the foregoing statements. I content myself with quoting extracts from a letter recently received from a friend holding an important municipal post in a naval port :—

Nothing has impressed investigators more than the high standard of the homes of men of the Lower Deck.... The men have taken an increased interest in educational and vocational training in the Service, and their first thought is to get a higher standard of education also for their children. There is a general demand for secondary education, and these children, of fine capacity and physique, have responded well, and have taken most satisfactory places in competitive examinations. . . . The men, with more leisure and less foreign service, have taken a big part in social service.

Roughly speaking, we may take it that two-thirds of the *personnel* of the Navy, including those on home service, and, for most of the year, those in the Atlantic Fleet, are constantly within reach of their homes under normal peace conditions. The leave conditions have been much improved for these since I served in its equivalent, the old "Home Fleet." Five days' leave, by watches, used, in those days, to be given two or three times in a year. It was not always given in the Home Ports, and much of the leave was then absorbed in travelling. Week-end leave was occasionally granted, in special cases, when the ships' movements made this possible. Nowadays, the ships' companies of the Atlantic Fleet get a fortnight's leave three times in each year, during visits to the Home Ports. In view of this valuable concession, which is much appreciated,

the old week-end leave has ceased. This has increased efficiency, as the short leaves used to disturb the work of the ships, and cut into the continuity of the training, which is constant and strenuous. Plenty of leave is given to go ashore in British and foreign ports after the day's work is over, and the privilege is very seldom abused. I gave some statistics of 14,000 landings at Algiers. These may be taken as typical. The authorities concerned (the Captain of the Fleet, if there is one) take a good deal of trouble on behalf of these "liberty men."

As an example I take a few points from a circular issued to ship's companies recently visiting a Spanish port. The water on shore is described therein as of excellent quality, perfectly safe to drink (many lives were lost, or constitutions ruined, in the old days for want of knowledge on this point, especially in the Levant, and I retain a vivid memory of disaster early in the 'nineties, to a batch of twelve fine healthy young midshipmen and naval cadets whose health was ruined in a ship commissioning in Malta Dockyard by attacks of fever, easily avoidable by simple precautions). A warning is issued against eating local shell-fish, especially oysters and barnacles. Lists of hotels, bars, and tea-rooms are given, with a warning against low-class eating and drinking houses, and especially against accepting free drinks therein, the local rum, or *aguardiente*, made from sugar-cane, being "dangerous to health and reason." The address of a good bank is given, with a caution against the money exchanges, and finally those wanting entertainment are told about tram car routes into the country, and about picture halls, and so forth. As the result of all this, and of the stamp of man now on the lower decks, the harpies that used to ply libertymen with bad drink and rob them of their belongings and of their self-respect now find themselves confronted with well-educated men (some

of the boys join from secondary schools) taking an intelligent interest in the countries which they visit, and well fitted to uphold the reputation of the nation and the Service which they represent. And, lest I should have conveyed an impression of softness and lack of virile force which marked the old Navy, let me add that most of the men have little use for the shore, excepting for the healthy and strenuous competitive games and sports, in which desperate keenness and powers of endurance are displayed. These take the place of the old mast and sail work in developing physical fitness.

CHAPTER III

GUNS, TORPEDOES AND ENGINES

AMONGST my most valued belongings I treasure a small piece of board, about 13 in. by 8 in., which floated to the surface when H.M.S. *Victoria*, flagship of the Mediterranean Fleet, was lost off the coast of Syria in the year 1893. This little bit of board was originally covered with paper, varnished over, and on the paper appeared various arcs and angles. The object of these markings was to help the officer in charge of the single turret to determine, by rough and ready methods, the range to be put on the sights as the bearing and distance of the target altered. It was the only instrument that was in use for the purpose in those days, and it was not an official store. It was made by the ship's carpenter, under the direction of an officer.

The historical value of this little relic lies in the fact that some of the varnished paper still adheres to the board, enough to show that the extreme range at which practice was carried out with the *Victoria*'s 100-ton gun at a (stationary) target was only 3,000 yards. I recall an experience about ten years later, as control officer in the unsheltered and exposed top, smothered with funnel smoke, of a battleship in the Home Fleet during "battle practice." The range to the (still stationary) target was a little over 5,000 yards. There was only a small range-finder, not of much use at that range, and rendered inefficient by vibration due to the ship's screws, accentuated by the firing of the guns. Prediction had to be done by intuition and experience, rather than by calculations, and the gun was its own range-

finder. The only means of conveying instructions to the gun-layers was a very wobbly canvas dial, with a still more wobbly pointer (worked by hand by a midshipman), fixed, more or less, to the side of the top. The indications on the dial were read by a messenger in an exposed position on the deck below. He shouted them to another messenger, who passed them to the gun that was firing. The human error was dominant.

In such matters we find vast changes in the present-day Navy. An officer in a similar position now has at his disposal a wealth of scientific instruments for automatic calculation, control and communication, and a skilled *personnel* to work them, all well protected by armour. The targets are no longer stationary, but moving, and practice at ranges of 17,000 yards (8½ sea miles), or more may now be a common experience. For all practical purposes extreme ranges may be said to be limited only by visibility, not always at its best in the winter months in some of the waters visited. ("Visibility *nil*" is a terse and expressive report that I have known to be made from a destroyer on a detached mission during an exercise.) Given the necessary visibility, the controlling officer of the present day can not only make immediate use of observed results, applying the necessary corrections in range to hit a moving target, but he can actually fire all the guns himself, thus, curiously enough, going back to the method of firing broadsides of muzzle-loading guns in an old battleship in which I served about 40 years ago.

In those days we did not know whether a naval action would be decided by the gun, by the torpedo, by the ram or by actual boarding and hand-to-hand fighting. Provision was made for all these contingencies, down to the supply of boarding-pikes and tomahawks in racks, ready for immediate use. Nowadays, the probabilities of a naval

battle are estimated upon a basis of experience, not upon pure surmise, and the weapons, in order of importance, are the gun and the torpedo. The gun first, because of the shorter time during which its missile is on its way to the target, obviously a point of importance when that target is moving fast on a course which must be estimated. Mechanical calculators, however perfect, cannot prophesy an enemy's movements during an indefinite period. To follow this up would involve us in unnecessary technicalities. I content myself with repeating that, while at sea, constant exercises are carried out between ships just within sight of each other, at ranges varying according to the visibility of the day. The value of such exercises will doubtless be realised, as will the value of actual practice carried out—within the limits imposed by economy—with guns of all calibres by individual ships, and by squadrons of them, against targets towed by tugs along different courses. The target service, a new development to me, is an essential adjunct to a modern fleet. Bearing in mind the shortness of the towing-hawsers employed, I should have been sorry to have been in a tug in the old days when practice was being carried out at extreme ranges, before the introduction of modern aids to naval gunnery.

The preceding remarks apply chiefly to gunnery practices, as I have seen them, in the big ships. Similar conditions apply, in a modified degree, to the exercises in other classes of vessel, in cruisers, in destroyers, and in submarines, in so far as they are applicable to the different conditions, and we can now pass to the torpedo, with which all are armed, using above-water or submerged launching apparatus according to circumstances. In the old days the behaviour of a torpedo when launched was a matter of speculation. Now it is practically a certainty. I have seen many run, and all have run straight. I should say that they can now

be relied upon to do so for about 14,000 yards, or seven sea miles. The result of much war experience has been embodied in their design, and their increased efficiency cannot fail to influence the tactical handling of future fleets, and the ranges at which actions are fought, in spite of the improvements in ship construction to meet the menace of under-water attack. Each torpedo of the largest type weighs a ton. Rapid loading of submerged tubes is an exercise worth watching. Much of the work is competitive, and it is not difficult to realise the need for careful drill of the *personnel* charged with the responsibility of placing ton after ton of these deadly machines into their launching apparatus, perhaps in a heavily rolling ship, without injury to their delicate apparatus. I have already emphasised the point that with the torpedo, even more than with the gun, the controlling officer with his directing apparatus needs prophetic vision about the likely movements of the target, which will be reached by the torpedo in the water after a far longer interval than it is reached by the shell in the air.

From the foregoing notes on the gun and the torpedo the deduction will naturally be drawn that, bearing in mind the lesson, taught by naval history, that it seldom suits both sides to fight a decisive action, no Admiral will be able to force an issue at such extreme ranges. The weight of ammunition required is enormous, and it would not be possible to carry enough. I am naturally not in a position to give details of conclusions, based upon actual target practice about the tactics which our Admirals propose to adopt. I should like, however, to emphasise one point which I have noticed. There was a tendency in the old days to concentrate upon the perfecting of *materiel*, and upon its employment in individual ships in competition with each other, without basing everything upon lessons which stand out from the pages of history. A very large

proportion, I should say the majority, of our naval *personnel* entered upon the Great War with a sort of general impression, with no historical backing, that a war at sea opened with a decisive battle in which both sides fought to a finish. The same impression was almost universal with the public. In these days I find naval officers increasingly imbued by the lessons taught by experience in this and in preceding ages, and I find the influence of this knowledge apparent in all evolutions and exercises. The nation would benefit greatly if similar knowledge were spread amongst the people. It would be an inestimable boon to our responsible sea officers if, in times of emergency, they had behind them the force of a public opinion acquainted with the nature of sea-warfare. They have never had this in the past. It may be that they will have it in the future, if, when war-weariness has passed, those who are responsible for education make it their business to pay more attention to this aspect of our national history. As a promising indication of a movement in this direction, it is possible to quote public lectures such as those that were delivered by Admiral Richmond not long ago at King's College, Strand, under the auspices of the University of London.

The point that will doubtless occur to readers of the foregoing is that speed is all-important. The side which has the power to force or to avoid action is the side possessing the fastest ships. By speed I mean speed on the high seas, not in calm water on the measured mile, and for speed in a sea-way size is required. I could tell a tale of a slow old battleship, the first mastless ship in my day that bore the since-celebrated name of *Dreadnought*; and of her having beaten, in a long passage against a head sea, the fastest of all the cruisers of her day, vessels that could have given her many miles start, and have beaten her, in calm water. Other things being equal, speed depends upon efficiency

in the engine-room and boiler-room. The stokers of to-day take the place of the race of seamen who won our old wars by their efficiency in handling masts and sails. They develop the power upon which movement depends. I wish that I had more space to describe the oil-feeding and raking of furnaces which I have witnessed in the boiler-rooms, in one of which I saw a roaring jet of steam result from the breaking of a gauge-glass, and noted the instant handling of the situation by the nearest stoker. There is, too, the quiet and efficient control of vast horse-power in the engine-rooms of turbine-driven ships that I visited. I must bring this chapter to a close by referring to the very wide subject of fuel, and its influence upon movement, upon which it is no exaggeration to say that everything depends. Having seen the feeding of oil into furnaces and the development thereby of steam-pressure, upon which, through the turbines, the movement depended, it was natural that I should wish to trace that oil to its origin. Having inspected all the appliances for storage on shore that were accessible at our naval bases which I visited, the thought occurred that the stored-up supplies would have to be replenished, not from our own resources, but from foreign countries. Mr. Kipling's lines about shipping crossing the salt seas with "England's own coal" should now read "other folks' oil." The lesson to be learned is that the task of the Navy has become far more difficult. Besides defending the vital flow of food, merchandise, and troops, which pass along our sea communications, it must defend its own supplies of oil-fuel, some of it coming from far-distant seas. Without such continuous supply our oil-driven Fleet must remain in defended harbours, where it might, to all intents and purposes, be non-existent. The same condition applies to supplies of petrol for our Air Force, and for our Army, all of which supplies are sea-borne.

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CHAPTER IV

SHIPS' COMPANIES AND MESS DECKS

IN the days of masts and yards the competition between ships' companies in the various evolutions aloft was desperate, partly because the question of " who won " was never in doubt. Results were obvious to observers in the whole squadron or fleet. The men aloft, especially the upper yardmen, held their lives in their hands. A good many were sacrificed. Twelve were killed by falls from aloft during the first commission in which I served in a masted ironclad in the Mediterranean. There were critics at sea in those days who asked what the use of it all was, bearing in mind that the sails and top-hamper would only be in the way in action. The competitive evolutions might be spectacular, and the display of agility might be magnificent. They were certainly not war.

I will try to bring out the difference in the present-day evolutions by describing a typical exercise at sea in a battle squadron. A fleet mine-layer precedes the squadron to sea. So do the mine-sweepers (small vessels of 800 tons, the product of war experience). Soon after the squadron leaves harbour, and while still in sight of land, a report is received that a mine-field has been discovered ahead, but the mine-sweepers have hastily swept a channel, marked by buoys, for the big ships, and here it may be well to add that mines were looked upon in the Great War as a peril more deadly than submarines. The mines lay quiescent. They might be anywhere in the waste of waters, and their explosive charges were tremendous, while the periscopes or the tracks of submarines might be located by keen look-

outs. On this occasion it is assumed that, though the mine-sweepers have done their best, the swept channel may still contain a few mines, and protective measures against them must be taken. The signal is given to get out the paravanes and the crews race each other to be first. We have most of us forgotten those war developments familiarly known as "P.V.'s," though they have since been explained to us in books with diagrams and pictures. It suffices here to note that they are heavy things to handle, shaped like fish, and that their mission is to be towed so as to swim alongside a ship, to deflect mines from her bow, to cut their moorings, and to send them to the surface harmless, or soon rendered so by shot or shell.

Getting them out and into position is a tricky business, involving careful drill; and here again I noted a great change. In the old days there was almost a frenzy of shouting during such an exercise. All operations were controlled by shouts, which could be heard from one end of the deck to the other, and aloft. In the vast ships of to-day such a system of control has become impossible. Silence is now the measure of efficiency and of good organisation. Voices are not raised in a big ship. It is by decentralising authority and responsibility, by influence, not by shouting, that those in charge conduct an exercise. Competitive keenness remains. There is the same watching for the breaking at the yard-arm of each ship of "No. 1 Pendant," which is the signal for completion of an evolution. Our next astern happened to be first, on the occasion to which I allude. Though she was close astern, and there was a following wind, not a sound reached us from her forecastle.

I could describe other evolutions and exercises, all of a practical nature, in big and in small ships. I have witnessed wonders of wireless telegraphy and telephony, not published

to all and sundry ; destroyers carrying out their mission of guarding battleships, and thrashing their way through a head sea which swept fore and aft over the decks of the great leviathan ; submarines lying in wait, and the protective measure employed against them ; small mine-sweepers facing weather conditions that cause capital ships to roll and pitch ; and little drifters performing their auxiliary missions and giving "hard-lying" experience to seamen coming from the greater comfort of big ships' mess-decks.

I must say something of life on those mess-decks, where great changes have been effected during the last few years. Greater care is now taken about ventilation, which is studied both in theory and in practice. The air is kept circulating, and steps are taken to stop impurities, such as the carbon-particles and sulphurous deposits from funnels, from passing through the inlets. Certain compartments, such as parts of the sick-bay, are ventilated by exhaustive uptakes. Sore-throats, formerly prevalent, are much reduced by the application of heat to dry the damp decks, after scrubbing. Hammocks are slung farther apart, to allow more breathing space. Arrangements for care of sick and for transport of injured have been improved, and I noted operating theatres, X-ray apparatus, and other equipment. I also noted, in that connexion, the value of fleet auxiliaries like the minelayer, *Princess Margaret*, which accompanied the Atlantic Fleet. Besides accommodation for officers and others for whom room cannot be found in other ships, she is also a hospital ship on a small scale. Her value for that purpose is obvious. If a serious case of injury or illness occurred in a big ship when engaged in (say) target practice with guns, the case can be treated in the *Princess Margaret*. If it were not for her the practice must be stopped, perhaps for several days, thousands of

men kept idle, and the whole training programme for the fleet upset.

I also observed bakeries for fresh bread (1,400 lbs. the daily output in one ship), and cold storage for fresh meat, together with the plentiful diet, varied menus, and preparation of meals under the new "general" system, which provides for the meals to be prepared by trained cooks, and not by untrained men in the messes, as in former days. I noted the sailors' little fancies in food, and willingness to spend money on them, and the serving-rooms with steam-heated ovens to keep the food hot to the moment of serving, and the helpings on the plates of duty-men until their return from work. I noted, too, the new "central store" system, run by the Paymaster Branch, who take on charge and issue nearly every set of technical spare parts used in a ship—10,000 different items on one ledger which I saw. I was impressed by the supply of suitable literature from book-stalls, in one of which I was told of a turnover of over £2,000 a year, and in another of sales of 400 books during a single cruise; the seamen's reading rooms, and their taste in cinema films; bath rooms, with hot water, for all; and spotless cleanliness in every corner of mess-deck and flat, put to a severe test when I went round some of them in washleather gloves one Sunday, up and down many ladders, and returned with my gloves as clean as when I started. (I hope that this little tale will be forgiven me. It will read as a commonplace to those concerned.) Then there is the provision for Sunday services, and for the daily prayers prescribed for all in the sea service. All these features of the new Navy, the last of them derived from the old, lend themselves to more detailed description. There are some, affecting organisation and discipline, which it would be a pity to omit.

Decentralisation is now applied upon certain principles,

varying with the size and nature of ship. The keynote of all is the human touch, secured in a battleship which I have in mind—with a crew of about 1,300—by the distribution of the deckwork between three “divisions,” fo’c’stlemen, topmen, and quarterdeck-men, with the Marines farther aft, and each division into three watches, red, white, and blue. It is thus provided that, as far as possible, the same officers and men always work together, that at sea there will be enough (one-third) on watch at all times to deal with immediate emergencies, peace or war, and that the administrative work, keeping of records and discipline of the men, shall be conducted by the officers with whom they work. By the word discipline, I do not mean punishment, though I might mention that it came to my notice that in one fleet during a whole quarter not one man of the thousands in the crews appeared in the Court Martial Return. Naval discipline implies, of course, strict obedience when on duty (“All Laws are as naught besides this one: Thou shalt not criticise but obey”), together with sympathy and understanding when duty is relaxed.

“We are the most democratic people in the world,” said a Spaniard to me one afternoon when I had landed in a Spanish port. “With us all classes eat together in restaurants.” I pointed out the quarter-decks of the battleships in the harbour beneath us, where men from the lower deck were boxing and fencing with ward-room and gun-room officers. No further comment was needed, but I wished that I could have shown him something of life in smaller ships—say, in submarines,—where “ranks and ratings” live in a confined space. The difference can best be emphasised by mentioning that the quarter-deck awning of the battleship *Revenge*, in which I spent a very happy time, covers three-quarters of an acre, and that from my cabin in the *Hood* to the anchor and back measured

a quarter of a mile, while, in a submarine which I visited, I could span most compartments with outspread arms (she had rolled 23 deg. during her voyage out). That emphasises the need for parent ships for submarines when in harbour, and in that connexion I wish that I was free to describe an unescorted experimental voyage of a submarine to Singapore and back, and her experiences when diving in tropical seas, at one time carrying a passenger, a man of science who lost sixteen pounds of his weight during his short trip ; also tales that have reached me of other British submarines, from the Atlantic to the China Seas.

Having only a month at my disposal, and so much to see, I did not get further than the Western Mediterranean. I returned to England in a mail steamer (one that had been at the Falkland Islands battle), threading her way through the merchantmen passing on their lawful occasions along the highway which passes St. Vincent, Finisterre, and Ushant. My fellow-travellers were from the Far East, from Japan, Shanghai, Hong-Kong, Borneo, and Singapore ; officials, merchants, and others, who by long custom do not look upon India as the East, but as a westerly region. Their talk was of the British Navy ; of its peace work in convoying traders of all nations up Chinese rivers under notoriously turbulent conditions, piracy being rampant ; of the general influence of the White Ensign in Far Eastern waters, damning the flood of anarchy and violence that would otherwise swamp altogether the suffering millions of China. Other similar tales were told to me, by passengers from Indian Ocean, Persian Gulf, and Mediterranean ports, of the Navy's normal police work as a war-preventive in countries with coasts in other seas.

CHAPTER V

THE FLEET AIR ARM

OPPORTUNITIES, such as those which I enjoyed, of watching the Fleet Air Arm at work at sea would convince anyone that seaborne aircraft are essential to the efficiency of fleets and squadrons, always provided that sea and weather conditions are favourable to flying. These conditions are the exception, rather than the rule, in the Atlantic in the winter and in the early spring ; they are more favourable in the Mediterranean. The functions of seaborne aircraft are to aid, not to replace, the sea forces which move upon the surface (and in these days beneath it), to perform their mission of establishing and maintaining sea-power in a world-wide theatre of operations. The time has not yet come for "aerial navies battling in the blue" to carry out this function.

There may still be controversies between those who determine our policy in such matters. With such controversies I have nothing to do. I write of the seagoing Navy with its seagoing Air Arm, as I have seen it work ; a force with a world-wide radius of action, not localised by the necessity to start from and return to land aerodromes or seaplane bases in British territory. A force which is limited in its air-power by conditions which obtain at sea, though not limited in radius wherever war vessels can operate. There are no controversies about such subjects at sea. The attitude of naval and of air *personnel* of all ranks in the Fleet Air Arm, and of the authorities under whose control it serves, is one of determination to make any prescribed scheme work, if it is possible to do so, by the exercise of tact and good fellowship. The ideal scheme would be a simple one, not requiring too much of these

qualities. In the ward-room of a large aircraft carrier I have found many sorts and conditions, about seventy or eighty officers in all; the Royal Navy as we know it, with all its branches—executive, engineer, Royal Marine, and others; flying Navy, flying Marines, and officers of the Royal Air Force in considerable numbers; all living together in harmony. The babel of tongues and chaff in such a ward-room would convert the most hardened disbeliever in wholehearted co-operation between the Services.

The number of aircraft carriers, and therefore the number of aircraft that can be employed in the Fleet Air Arm (beyond the radius of action of those starting from aerodromes on land), is limited by undertakings given at Washington. We own at present four large aircraft carriers, which we can describe as floating aerodromes—the *Eagle* (22,600 tons), in the Mediterranean, the *Furious* (19,100 tons), with the Atlantic Fleet, the *Argus* (14,450 tons), recently paid off on being relieved by the *Furious*, and the *Hermes* (10,850 tons), sometimes lent to the China Squadron from the Mediterranean. It is upon these carriers that most of the actual flying aircraft of the Fleet Air Arm are based. Aeroplanes can ascend from, and alight upon, them in favourable weather. Additional aeroplanes can be, and sometimes are, carried in capital ships, starting their flight from platforms fitted to the foremost turret guns, but these, after their mission in the air has been performed, must alight on the deck of a carrier, on the land, or upon the sea (in which case the machines are probably lost, the airmen being picked up, if possible, by attendant destroyers).

Carriers, let us again remind ourselves, are simply sea-aerodromes. They are moving bases, with only defensive power: they are not in themselves striking forces. It is the actual flying machines, flights of aeroplanes in the exercises which I have witnessed, that really matter, so

let us abandon statistics and turn to more attractive aspects of the problem. To watch the Fleet Air Arm at work is a most exhilarating experience.

The Fleet Air Arm organisation at present provides, according to the Navy and Air Force Lists, six flights (there are normally six machines in a flight) with the Atlantic Fleet, four flights with the Mediterranean Fleet, two flights with the China Squadron, and six flights at shore bases, of which three use the *Argus* (paid off) as a floating base, and some provide the machines above mentioned, which are intended to fly from capital ships. Of this total of eighteen flights of aircraft at the disposal of the Navy, capable of employment over all the seas of the world, six are fighters, five are reconnaissance flights, four are spotter flights, and three are torpedo flights. The nomenclature sufficiently indicates their functions.

Let us imagine some of them at work during their peace training, always proceeding when opportunity offers. A squadron of battleships is moving, say, on a southerly course, with a strong following wind. A large carrier is in company. She sends up an aeroplane to scout ahead. (This function can, in favourable weather, and by day only, be performed by a fleet air arm to assist a cruiser screen, provided that all goes well.) Where should the carrier be stationed? How far ahead of the battle squadron? The importance of this question is at once apparent if we bear in mind that she has the wind behind her, and unless she turns round and steams up-wind, aeroplanes cannot rise from her deck. She must, if possible, steer exactly into the eye of the wind, or the airmen may be in serious trouble. With a wind of (say) ten miles an hour, and the carrier moving against it at (say) twenty miles an hour, there would be an "over-the-deck" wind of thirty miles an hour, which would provide ideal conditions for the

airman to rise into the air, and so depart upon his mission. Let us now look at the problem from the point of view of the airman. He has something to accomplish, to find out something, to torpedo or bomb a ship, to fight enemy fighters or avoid them; no matter what, and his mission takes him many miles away from his moving base. How is he to find her before his petrol is exhausted, say, within three or four hours? Homing pigeons have a sixth sense, which takes them home to the loft where they were hatched. If that home moves during their absence, even they cannot find it (at one time, in my service at sea, I tried the experiment with them). The naval air pilot must be a better navigator.

Now let us look at the problem from the point of view of the flag officer in command of the fleet or squadron, on whose behalf the airman (it may be whole flights of them) is flying, bearing in mind all the time that the wind is still astern, and the airman, and the airman's home, the aircraft carrier, must steam head to wind—in the opposite direction to the course of the fleet or squadron—when the airmen want to accomplish "landings" on her deck. If the carrier is with the fighting ships, she soon may be many miles astern, and separating at the rate of about forty miles an hour in the case that we are considering. If so, how is she to be defended if enemies are around? I suggest no solution for these little difficulties, and only mention them to give an idea of some of the new problems facing those who are responsible for solving them. What is happening at sea, in connexion with the Fleet Air Arm, is that the old type of weather-wise seaman is again coming into his own. He has to use the great forces of nature, wind and weather, as in the old days. Movement again depends upon these forces, and not entirely upon mechanical appliances.

Let us return to our airman, who, we will say, has an observer with him. He is flying high, far away from the

fleet and the carrier. The weather changes. A nasty sea gets up, with lowering clouds. He loses his direction, and, running short of fuel, is obliged to face a bath in the waste of waters, let us hope near a passing merchant ship. Perhaps, in due course, under-carriages will be devised for sea-borne aeroplanes, with floats, like those of seaplanes. Perhaps they have already been perfected. Let us take it that our airman is saved by the good seamanship of a merchant crew, though ordinary aeroplanes do not float very long in a loppy sea. Or we may imagine that he used his wireless to the last moment, and, if he did, that its direction might have been picked up, and destroyers sent to his assistance. Improvements in directional wireless are not made public by the Navy, so I cannot enlarge upon this theme.

Such has been the march of science in late years, and such are the commonplaces of experience during the peace training of the Navy and its Air Arm. The typical incident which I have described was actually witnessed. It serves to teach us some of the qualities required of aircraft carriers in the Fleet Air Arm, and also of their crews. The larger the flying deck the better, to provide a good platform for aeroplanes to take off and to alight (a still more ticklish business). The steadier this platform is at sea the better. It must be embarrassing for a pilot to arrive on a rolling and pitching surface, and equally so for those who have to swarm on to a bare deck—with nothing to hold on to in order to secure his machine. Above all, looking at matters from the point of view of the commander of a fleet or squadron, an aircraft carrier must have speed. She may drop fifty miles astern, steaming head to wind, to enable the aeroplanes to land upon her. It is obvious that the sooner she catches up the fleet the better. To other matters affecting the subject of flying navies I propose to devote the next chapter.

CHAPTER VI

FUNCTIONS OF AIRCRAFT

I HAVE described work of the Fleet Air Arm, carried out under somewhat adverse conditions of weather. I will now take another example, with these conditions in favour of flying. The weather is beautiful; the visibility good. A squadron of battleships is rolling gently along at slow speed, in a long swell. (We cannot afford the oil fuel for normal speeds in time of peace, and the Navy does the best training that it can with what it can get.) The sea is calm enough for battleships to keep their ports and scuttles open, even those nearest to the water-line. A cruiser-screen ranges ahead, escorting destroyers are on each beam. Suddenly about half a dozen torpedo-planes appear like a covey of driven partridges, apparently from nowhere, really from beyond a bank of cloud on the horizon. Gunfire is opened upon them from the escorting destroyers and from the battleships. The torpedo-planes manoeuvre, zigzag, dive low, and drop their torpedoes. Some hit the ships, some do not. One battleship hauls out of the line to avoid them. Away go destroyers to pick up the torpedoes and so save the pocket of the taxpayer.

The value of such exercises is obvious. The actual results, under war conditions, are a matter of conjecture. Would the concentrated fire of so many guns have brought down all those partridges with human brains, manoeuvring to puzzle the gunners? If not all of them, which would have been brought down, those that missed with their torpedoes or those that hit? Did the pilots hang

about too long under fire after launching their torpedoes, so that they would have had no chance of getting away at all? And if the torpedoes did hit, how many of them must have done so to do serious damage to an up-to-date capital ship? These things cannot be determined under peace conditions; and war experience is lacking. I believe that the first enemy torpedo-plane was used in the late war by the Germans, and that she was brought down, without effecting her object, by a light gun temporarily mounted in a merchant steamer. There have been great improvements both in aircraft and in anti-aircraft gunnery since those days.

Let us assume that, later in the day, a similar attack is made upon the battleships, and that this time not more than one, or let us say no torpedoes hit their targets, but several battleships haul out of the line, some one way, some another, to avoid them. To what extent would this breaking up of formation affect the issue of an action at sea? I remember reading in *The Times* of similar questions being raised about the effect of raids by flights of "fighter" single-seater machines upon troops in an approach-march during some Army manœuvres. Then we will imagine that, towards evening, flights of little single-seaters are suddenly espied as little black specks against the dazzling rays of the sinking sun. Within a few seconds they are buzzing round the battleships, circling and wheeling within a few feet of the masts, wireless aerials, and funnels, sweeping the decks with imaginary machine-gun bullets; it may be dropping bombs. What would be the effect upon exposed personnel, especially upon anti-aircraft gunners, if they showed themselves?

Such incidents as those that I have suggested illustrate the possible activities of Fleet Air Arms in reconnaissance and in attack upon surface craft. To these we can add the

mission of spotting the results of gunfire, changes of formation or of course by an enemy force, and so on, always provided that conditions of wind and of weather enable the aircraft to rise from the deck of the carrier, and the survivors to alight on it after their mission is performed. Umpiring in such incidents is not easy. In favour of battleships it can doubtless be claimed that, in the interests of economy, they cannot steam at war-speeds in time of peace, that their own fighters would have been in the air to deal with those of an enemy, that anti-aircraft and other guns, including light automatics, would have brought down the hostile aircraft, or killed the pilots. In favour of the aircraft it might be advanced that, though some might have been shot down, the survivors would have scored successes. The answers to such questions can never be definitely determined. Writing as an onlooker, with no experience of hitting aeroplanes in the air, but plenty of experience in missing driven partridges, the opinion that I have formed is that fire would probably be effective against the more deadly torpedo-planes, but ineffective against the speedy and spectacular little fighters, from which, however, battleships have little to fear if the *personnel* on deck have some light cover.

In connexion with Fleet Air Arms, let us here recall the point that heavier-than-air machines can, from the point of view of a widespread Empire like our own, be divided into two classes—those that start from land, with limited radius of action, and those, in the Fleet Air Arm, that can operate, in favourable weather, with our fleets and squadrons in accomplishing their world-wide mission on the high seas. The majority of these must be taken about the world in aircraft carriers, which are still in an experimental stage. To some of the conditions which they must fulfil I have already referred. Seen at sea, mastless,

funnelless, with freeboard of extreme height, I have heard them described as looking like nothing on earth. In studying them at close quarters from outside, you note the flush flying-deck, with what looks like another below it, on the next "storey," everything on a vast scale. Inside she obviously contains huge hangars, and unless she is rolling it is difficult to realise that you are not on shore. The aeroplanes come up to the flying deck on lifts, of which the tops are conspicuous when seen from above. You wonder how those charged with handling the machines can keep their footing without anything visible to hold on to with their hands, in a sea-way. You note, in that connexion, wire nets running along the side, outside and below the flying deck, and you can puzzle over their uses and over the methods employed to get the flights off at quick intervals, so that they may be in manœuvring or in fighting formation as soon as possible after they reach the air. You can puzzle, too, over the appliances required to get each machine stowed safely below the flying deck as quickly as possible after it arrives, in order to enable the next one to descend.

I am told, and I can well believe it, that greater developments are possible for aircraft that start from the land than for those whose dimensions are limited by the size of the lifts, and the hatches through which they must pass, at sea. However that may be, the strengths of Fleet Air Arms are strictly limited by undertakings given at Washington, and these, combined with limited radius of action after leaving the flying decks, should satisfy all countries owning large forces of aeroplanes, starting from land aerodromes, that Fleet Air Arms are not, from their point of view, offensive weapons intended for use against the civil population.

Sea-borne aircraft extend, by a distance equal to their

radius of flight, the range of influence of the fleets from which they rise. They extend the area over which information, gained from personal observation, can be collected. They increase striking power. Against an opponent beyond gun-range, they can drop bombs instead of shells. Within gun-range they can increase the accuracy and effectiveness of gunfire by recording and reporting results. Beyond the range of torpedoes from ships' tubes they can launch these weapons on their mission, dropping them from the air, always assuming that conditions of wind and sea permit. In order to rise from a deck there must be a wind-on-the-deck speed of, say, twenty to thirty miles an hour (my own rough estimate, with which all experts may not agree), and the ship from which they rise must turn exactly head to wind. Responsibility for sanctioning, or for stopping, air operations at sea rests with the captains of air craft-carriers, acting on the advice of experts in conditions of flight under seafaring conditions. The whole conduct of the Fleet Air Arm requires qualities of seamanship and wisdom about matters connected therewith that were not lacking in our race in the days of the sailing era, when the old Navy succeeded in guarding those interests which are vital to the very existence of the people of the United Kingdom, and essential to the Empire at large. From what I have seen of the new Navy, it is likely, given the necessary equipment, to prove worthy of its inheritance.

There has been no change in the functions of the Navy of to-day, or in their importance to the country. If anything, this importance has increased. We, in the British Isles, are more dependent now than we were in any previous period upon imported food and upon industries which require raw materials for manufactures and overseas markets for products. Responsibilities for the welfare

of over-seas nations and territories have also increased beyond measure, and these responsibilities, in the main, are not for defence of those of our own race, but of other races. These matters affect all the Services, within their possible radius of action. In writing of the Fleet Air Arm, constant reference has been made to the air range of torpedo or bombing machines which start from land aerodromes. All of whom I have consulted agree that their radius of action is very limited. So far, the most optimistic have not suggested to me more than 500 miles as an ultimate limit likely to be reached in the future, unless radical changes follow some new development in the principles of aircraft construction. This subject is of so great moment to us all that it will be well to quote *verbatim* the latest official statement which has been issued for our guidance by the Committee of Imperial Defence (Cmd. 2029) :—

Though certain types of aeroplanes have a radius of action up to 500-600 miles, and others up to 300-400 miles, neither the British nor any other Air-Service is yet equipped with aeroplanes whose normal effective radius of action exceeds about 200 miles, and beyond that distance only sea-borne aircraft have to be considered. But it must be remembered that the types of aeroplanes now in Service use continue steadily to be replaced by machines of greater power and wider radius of action.

Although issued in 1924, the date upon which that report was signed is given as July, 1923. If, and when, that statement requires amendment, we can assume that it will be given the same publicity. Meanwhile, it will be an interesting experience for all to whom the subject of

Empire defence appeals, to take down an atlas and to draw, on a world map, pencil arcs, with a 200-mile radius, from all foreign territories containing air forces with land aerodromes from which they might sally, for that distance, outwards over the sea, together with arcs, with the same radius, from all places in British territory where land aerodromes could be established to aid our warships in their world-wide task. To such new developments as these the Navy of to-day is compelled to pay its constant attention.

CHAPTER VII

THE SPIRIT OF THE SERVICE

HITHERTO I have only touched lightly upon the subject of greatest importance of all, the commissioned officers of the three main branches of the Service, the naval and marine officers, whose work is on the deck, and the engineer officers, whose normal work is below.

The first change that catches the eye is the wearing of what used to be called the "executive curl" on the gold lace on the sleeves of all naval branches, and the gold oak-leaf lace on the caps of all holding equivalent rank to commanders and above. The next impression is one of all-round harmony and co-operation in whatever may be on foot, whether service or social work. On the executive side the staff is a new feature to me, and its value is undoubted, especially in co-ordinating the energies of the handlers of the different weapons, and in drawing up the combined exercises desired by the flag officer concerned. Greater interest in, and better practical value of these operations have been the result. There is one danger that may have to be faced in the future. It was said at one time that "the curse of the Army used to be drink; now it is ink"; and the same may some day be said of the Navy, unless the increasing zeal for writing memoranda is kept within bounds. "The more you write, the less they'll read," was the remark of a wise Field-Marshal to a new chief of his staff. Flag officers will doubtless deal with a similar situation equally tersely if need should ever arise.

In some of the large ships which I saw, with crews up to

about 1,300, it is noticeable that less responsibility can now be given to the more junior executive officers below the rank of lieutenant-commander. This is a serious matter and it is not surprising that many are anxious to find their way to smaller surface craft, to the submarine service and to the Fleet Air Arm. In all these they are of more account, and they obtain experience in more responsible positions. Passing to the midshipmen, I found them living in greater comfort than of yore. When last I served at sea they lived in crowded flats. Each had his belongings packed in a chest (provided by himself) with only a small tin basin in that same chest for his ablutions. In one large modern ship I found that the midshipman's accommodation included not only bath-room with hot and cold water, a chest provided by the Service, a chest of drawers and part of another, a place to hang coats and a large receptacle for sporting gear, but also a large place to dress in, and a study, at all times at his disposal for work at his books. Most of these amenities are common in these days to all large ships, but I should like to emphasise the point that, while decent comfort is now provided, there is no trace of luxury.

Of the marine officer, all that need be said is that Admiral Fisher's discovery, 25 years ago, that he should not be described as "useless" but as "not used" on board ship has borne fruit. The marine officer now has plenty of work. He is all the better for it, and his status at sea has vastly improved. Into the controversy on shore over the status of the engineer and the (E) officer, I do not propose to enter. I heard nothing of it while I was at sea, and I did not raise the question. I noted the variety of sources from which the Staff of the engine-room is drawn, and hoped that simplicity would be the keynote in any future arrangements.

Speaking generally, married officers are far more numerous in all branches than they used to be. In my day they were in a small minority, constantly chaffed as "bundle-men." Now, in some ships, they are in a majority, and this has led to no slackening in efficiency and in zeal for the Service. I should say that there is a general increase in both. A married officer in the Navy is put to the expense of maintaining a house on shore. Married officers and men receive special treatment in all other fighting Services. So do married men on the lower deck in the Navy. Looking at the question from the point of view of the nation, rather than from that of the Navy, I can think of no argument that the naval officers' fellow-countrymen can use to justify this difference, except the argument that times are so hard that they really cannot spare the money for the present, though they recognise the need to provide it when business improves. The honour of the nation is affected, and the injustice rankles. This suggestion exhausts my detailed comments on life, as I have seen it, in the Navy of to-day.

There remain some general impressions to be recorded. I feel that I have fallen short of my intention to do justice to the spirit of the naval service. In a cabin in H.M.S. *Revenge*, in which some of these chapters were written, I found a speaking likeness of the late Admiral of the Fleet, Sir Arthur Wilson, the last Flag Officer with whom I served at sea in an older *Revenge*. I was thereby reminded of the tribute which Mr. Churchill paid to him in his *World Crisis* :-

He was, without any exception, the most selfless man I have ever met or even read of. He wanted nothing and he feared nothing—absolutely nothing. . . . Everything was duty. It was not that nothing else mattered. There was nothing else. One did one's

duty as well as one possibly could, be it great or small ; and naturally one deserved no reward. This had been the spirit in which he had lived his long life afloat, and which by his example he had spread far and wide through the ranks of the Navy.

That passage describes most admirably the naval tradition, a subject on which the Navy itself is never articulate. I cannot myself imagine Sir Arthur Wilson as a spreader of that tradition, but rather as an interpreter of a spirit that he found in existence. My feeling, on reading the extract which I have quoted, was one of surprise that so widespread an attribute of the Navy had been so tardily recognised by one who had occupied for so long the position of First Lord of the Admiralty.

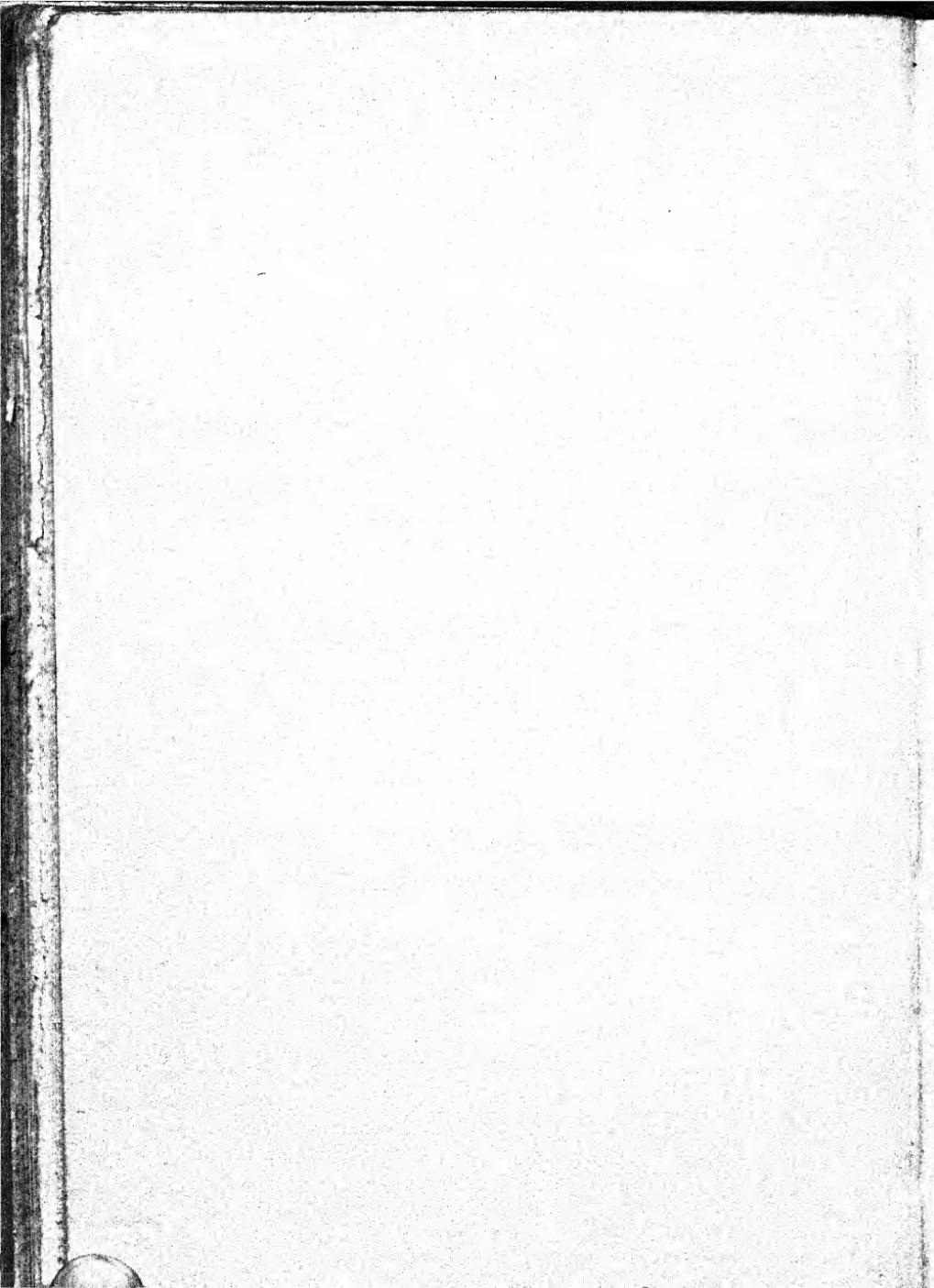
I have now described, at some length, the peace-work of the Navy. It has been the custom, of late years, to abandon the Naval Manoeuvres which used to bring the Navy prominently before the Nation, but the Atlantic and Mediterranean Fleets assemble occasionally to carry out routine evolutions and practices under their respective Commanders-in-Chief. These attract but little attention. Our reduced fleet of capital ships is now concentrated in the Mediterranean and in home waters. In the old days it could be used in any part of the world where its services were required. In these days, owing to lack of bases for these large vessels, the same conditions no longer obtain. Of independent cruiser-squadrons and smaller craft our strongest force is in the Far East, and there are smaller squadrons in other distant seas, some of them not so strong as they used to be for the missions with which they might be entrusted. For precedents in our history when similar conditions obtained in distant seas we must go back to the 18th century. Kempenfelt then wrote down his views

that :—" When inferior to an enemy, and you have only a squadron of observation to watch and attend upon their motions, such a squadron should be composed of two-decked ships only (that is, ships of the highest mobility), so as to assure this purpose. It must have the advantage in sailing, else under certain circumstances it will be liable to be forced to battle or to give up some of its heavy sailors."

Speed, then, in a sea-way, is the quality of the greatest importance in the outlying squadrons of our present-day Navy, a lesson which was taught us, I hope once for all, at Coronel in 1914.

As I passed the Eddystone on my return to England and entered Plymouth Harbour, some small mine-sweepers, about to put to sea to join in exercises with the Fleet, showed up in the mist. Behind them, as a background, was Plymouth Hoe. I was tempted to commit the enormity of closing the account of my experiences at sea on the heroic note, with something about a certain game of bowls. I was saved from that by recalling a little incident at Gibraltar. I had returned from a climb to the top of the Rock. Meeting two friends in the Navy, I perpetrated rather a priggish remark : " I should like to sit up there again, and read naval history." The answer came pat : " Why not French novels ? " The Navy of to-day has no use for heroics.

PART II
FURTHER REFLECTIONS



CHAPTER VIII

THE NAVY AND THE NATION

IN pondering over the peace-time activities of our Navy, it is natural that one's thoughts should turn to the movement in favour of "disarmament" (really a reduction of armaments), whereby it is hoped to get rid of the fear and suspicion of each other's motives which form such unfortunate features in international relationships, especially in Europe. This movement is now being dealt with at Geneva, both from a national and from an international, or rather from an interstate, point of view. Whatever may be said at Geneva, we can assume that nothing will ultimately be done without the sanction of Parliament, where public opinion is sooner or later reflected. Much will then depend upon the use that is made of the intervening months (or years?) that must elapse before disarmament proposals take a definite shape to study the problem from its two aspects, the one affecting our own security as an Empire scattered all over the world, the other affecting the security of other nations, and the maintenance of a general peace. A great French historian has said that a nation is safe in the crisis of its fate if it can remember its own history. Much of the glory of our annals has been contributed by the Navy, and for that reason it is the duty of all British-born to look at their history from the sea-angle.

The quotation is taken from the preface to Professor Callender's *Naval Side of British History*, which was published recently with the laudible object of facilitating our study of the naval conditions that govern our well-

being and our very existence. The author's researches covered the period from the fifteenth century to the twentieth. His conclusions resemble those that were arrived at by Vice-Admiral Sir H. W. Richmond in his *Raleigh* lecture, delivered nearly four years ago. Admiral Richmond put the position so clearly that it will be as well to quote his conclusions *verbatim* :—"Many threads run through that great fabric, the foreign policy of England for the last three centuries, but while these come and go, one basis of policy is so persistently recurrent that it seems to deserve a claim to permanency—the maintenance of naval strength." And again :—"Through different periods we can trace at least one definite aim running, with very slight interruption, through our external policy: that, by its efforts, it shall contribute to supplement the internal efforts to maintain supremacy at sea." What our foreign policy shall be is a question for the people and for those to whom they entrust office to decide. For over a century following Waterloo the strength of our Navy was based upon the assumption that it would be too risky for us to rely upon the permanent friendship of any foreign sea Power. It was not always so. Professor Callender reminds us that in the middle of the eighteenth century "the age of common sense, pluming itself on the sanity of its judgment, decided that adequate provision should be made for such contingencies (and such contingencies only) as the statesman's eye could foreshadow." The statesmen of those days were unfortunately lacking in prophetic vision. Between 1739 and 1800 statistics of our ships in commission show violent fluctuations between a minimum of about 50 and a maximum of about 670, and of naval *personnel* between 8,000 and 120,000, and Captain W. M. James, in his *British Navy in Adversity*, published last year, points the moral in his account of the happenings between 1767 and 1783. From that date the

story of the Navy is better known, and from Trafalgar onwards, until 1914, our sea-power was not seriously challenged.

Directly after the Great War we abandoned for financial reasons, as will appear in due course, the policy of maintaining the strongest Navy in the world, and the question now before the nation is whether, in the present state of affairs, we can afford to bind ourselves to any lower relative standard of sea-power than that to which we are at the present time committed. Let us approach the subject in the light of recent events.

Lord Grey of Fallodon told us in his *Twenty-five Years* that our financial position was strong at the time of Mr. Churchill's proposal to Germany of a naval holiday, and that if the competition had been pushed to extremes it would not have been our finance which would have cracked first. "Naval superiority," he wrote, "had been our life and death to us ever since we became dependent upon world trade: we must either keep it or die." And Mr. Churchill told us in his *World Crisis* that he was nearly forced to resign his post as First Lord of the Admiralty in December 1913 on this same issue. The very foundations of naval policy, he added, were being challenged by others in the Cabinet, and the controversy was maintained by "Ministerial critics specially acquainted with Admiralty business, versed in every detail of the problem, and entitled to be exactly informed on every point." A compromise was arrived at, with which the First Sea Lord of the day had expressed himself satisfied, and so the crisis of 1913 passed. The German menace soon afterwards matured. Disaster was averted by those who, with Lord Grey, had been staunch in previous years to the "very foundations of naval policy" and to the "naval superiority that had been our life." It is clear to us, in the light of subsequent

events, that death would have followed very swiftly upon its abandonment.

The German menace at sea has passed away, and the question arises whether our sea-sense and the old principles so constantly established by experience can be safely cast aside. It will be as well to recall those principles in so far as they have been expressed in "standards" during the present century. The first point to be borne in mind is that, excepting in capital ships or ships of the line (expressions here intended to cover battleships and battle-cruisers capable of taking a leading part in a fleet battle), we have never adopted a numerical "standard" in comparison with foreign navies. We have always based our strength in other craft upon our minimum requirements to fulfil the Navy's mission in ensuring the security of our vitally important sea communications. This principle was recognised, and constantly expressed, in the days of the "two-Power standard, regardless of flag," in capital ships. Other classes of vessels were required for two distinct purposes—(1) for working with fleets, and (2) for protecting merchant shipping (and also, if need arose, for attacking an enemy's commerce and transports conveying his military expeditions upon offensive missions). Stress must be laid upon that point, because of misconceptions that have arisen about the situation at Washington in 1921-22. We did not then, and we never could, bind ourselves to maintain vessels required for commerce protection on a standard which might be safe for Powers not having the same vital interest in the safety of widely dispersed territories and of commerce, and our special position has been recognised by all the leading sea Powers.

The "two-power standard, regardless of flag," in capital ships, which helped so much in maintaining the peace of the world, carried us safely through the first decade of the

century. Then we abandoned that standard, which we could easily have afforded to support. There are some who hold that we thereby contributed to the untoward events of 1914. Others have gone so far as to maintain that our Little Navy party, by deceiving foreign nations, have been an asset to the country : " In general," we read in *Callinicus*, " pacifists are a very great military advantage to Britain. On the outbreak of war the large majority of them become intensively patriotic, whereas beforehand they led our own military and also those of our potential allies and enemies to underestimate our strength. This keeps us out of some wars, and leads to our showing unsuspected power in others. After a few years of war, when the originally bellicose politicians like Lord Lansdowne are getting tired, ex-pacifists like Lloyd George and Pitt have just got into their stride. The national staying-power is thus greatly increased." Owing to the divisions in the Cabinet which were described so graphically in the *World Crisis*, we abandoned the " Two-Power " standard in face of German competition, and we adopted a 1·6 standard above Germany, the principle of a sufficiency in other classes of vessel to meet our own special requirements being left intact. Both before, and after, we adopted the " two-Power standard " we gave guarantees of sea security to outlying nations of the Empire; so it was necessary in 1912 for the Admiralty to explain to them the new situation that resulted from the abandonment of that standard. An announcement was accordingly made by the Admiralty to the Canadian Government, and repeated to all the self-governing nations of the Empire, that our power to send an effective fleet of battle-cruisers to distant seas without courting disaster in home waters would be diminished with the growth, not only of the German navy, but also by the " simultaneous building by many Powers of great modern

ships of war," and that when studying their own problems of defence it was necessary for them to bear in mind the existence of a number of new navies, all comprising ships of high quality, in so far as it affected the possibility of adverse combinations being formed.

These matters have now passed into history. It will suffice for our purpose to summarise, very briefly, some statistics which show the fulfilment of the Admiralty prophecy. They refer only to capital ships, including battleships and battle-cruisers, to which the Admiralty applied the expression "great modern ships of war." They do not show the other classes of vessel that must be provided to deal with the conditions that are peculiar to the British Empire. The figures for foreign ships include only those of the principal navies during the period covered, the Powers being—in alphabetical order—France, Germany, Italy, Japan, Russia, and the United States. In 1907 these Powers owned 88 capital ships to 52 British. From that year onwards the foreign total rose in a steadily increasing ratio until 1916, the second year of the Great War, when the foreign countries specified owned 147 capital ships to seventy-one British. By 1918 the British proportion showed a further drop to sixty-four, the foreign figure then being 142. Then the achievements of our Navy in the Great War began to tell. Foreign capital ships dropped in 1919 to 105, of which thirty-six were American, and we began to scrap. By 1922 we had only twenty-two against eighty-six foreign, including thirty-two American. The United States had set the pace. Their figure had stood at thirty-six in 1919—see above. We see, then, that the excess of foreign capital ships over British rose from about sixty-nine per cent. in 1907 to over 100 per cent. in 1916. Then, chiefly owing to the achievements of our Navy in the Great War, we note a steep drop

in the foreign figure. Thenceforward Great Britain took the lead, not followed by other sea Powers, in reducing sea armaments. Then, from 1922 onwards, the world situation in battleships and battle-cruisers ("great modern ships of war" in terms of the Admiralty prophecy of 1912) has been standardised as the result of the Washington Conference of 1921-22. The excess of foreign over British, which stood at sixty-nine per cent. in 1907, now stands at 145 per cent. in total number of capital ships; but this total includes old vessels much depreciated in value, so let us see what has happened since we ourselves set the pace in building the new type of capital ships, commonly called the "Dreadnought" type, in 1907. By 1910 there were more foreign *Dreadnoughts* in the world than there were British. In 1916 there were seventy-two foreign to forty-one British. In 1919, forty-six foreign, of which seventeen were American, to forty-two British. We then took the lead in scrapping, until in 1922 we had only twenty-two to fifty foreign. The Washington agreements brought the total number down to forty-four foreign (including eighteen American) and the British and American numbers will be the same when the results have materialised this year.

Incidentally, the figures for vessels of the so-called "Dreadnought" type show how transitory an advantage is gained by a strong naval Power which takes the lead in revolutionising new designs, thus depreciating the value of its existing fleet; and the fall in the years 1920-23 of the British number from forty-two to twenty-two, while the foreign number rose in the same period from forty-six to fifty, brings out, even more clearly than before, the point that Great Britain took the lead (not followed abroad) in reducing sea armaments. It will be noted that the total excess of foreign over British stands now at about 100 per cent.

A point which emerges clearly from the preceding notes is the alteration in the situation at sea caused by changes in the relative strength of navies. In 1902, before the German menace arose, the Admiralty laid down in a memorandum on sea-power the principle that the requirements of our naval strategy necessitated our being strong enough at sea to conduct a vigorous naval offensive all over the world, while at the same time concentrating a sufficient force to ensure victory in the decisive battles, in whatever part of the seas those battles might take place. We can concede whole-heartedly the point pleaded by Captain W. M. James in his *British Navy in Adversity* that "the counting of ships and guns is a fascinating pursuit, but we need look no further back than the Battle of Tsushima to see what pitfalls await the statistician." Nevertheless, a new formula seems now to be needed to meet possible future conditions, and to suit the present distribution of localised sea-power, bearing always in mind that the sea interests to be guarded are not less, but more, vital than they were in any previous epoch in our history. Also that these sea interests affect not only the people of these islands (who bear nearly the whole burden of cost of the Navy), but also the hundreds of millions of other peoples who have developed, or are in process of developing, into nations under the protection of British sea-power.

It is not only a question of prospective belligerency, but of guarding our interests at all times, possibly as neutrals when others are belligerent. Our foreign policy, supported by all classes in the nation, can now be briefly described as a League of Nations policy, upon which all political parties are agreed. Neither that, or any other, national policy can be effective without an adequate Navy. Whole libraries have been written to bring out that outstanding lesson, which stands above all questions of political party. There

is no need, therefore, to go into details. We can content ourselves with noting that, owing to the reductions which have already been applied to our sea armaments, some of the outlying squadrons which are performing peace functions, especially in the Far East, are doing so in the immediate proximity of stronger foreign navies. Here we can find comfort, if we will, in the Quadruple Pacific Treaty with its numerous subsidiary agreements, signed at Washington in December 1921. It is therein provided that, in the event of controversy too serious to be dealt with by diplomacy, the parties involved will "invite the other High Contracting Parties to a joint conference to which the whole subject will be referred for consideration and adjustment." In the, at present unlikely, event of differences of opinion reaching so serious a stage, there would obviously be difficulties over reinforcing the outlying squadrons. Such a course would not tend to a peaceful solution.

CHAPTER IX

THE DISARMAMENT MOVEMENT

FROM the preceding chapter it will be realised that the recent changes in relative sea-power are directly attributable to the immense sacrifices made by Great Britain in the cause of her Allies in the late war. Ernest Fayle, the official historian, has explained this point in detail in his *Seaborne Trade*. "With regard to America and Japan," he writes, "the war had been a period of expanding trade and increasing tonnage"; and after setting forth in detail Britain's "lion's share of the burden" he adds that far the most serious of the permanent results was "the financial situation produced by the restriction of the export, and the redirection of both the export and the import trade. For these the submarine campaign was, in large measure, responsible." It has been necessary to go into these matters at some length, in order to place the question of naval disarmament in its historical setting. The main features of the present situation in vessels actually built, of classes in which relative total tonnage was not standardised at Washington, are that we possess more cruisers (many of them old and small) than America, while America owns more destroyers than the next two sea Powers (ourselves and Japan) put together, and also more submarines than the total possessed by those two Powers. The Navy League published last year a useful *précis* of present conditions, as disclosed in official returns to which I have referred. It was shown that not only had our naval strength deteriorated numerically in the preceding year, as compared with the other principal

naval Powers, but also that the situation was yearly growing worse.

That *précis* should be read in conjunction with opinions recently expressed by Archibald Hurd, one of our most sane and able exponents of the subject of sea-power, who reminded us that Japan is faithfully observing her obligation to restrict the strength of her battle fleet, and that the sequence of events since the war supports the conclusion that the peoples of the United States and of the British Empire (regarded under the Naval Treaty as a federation of nations with a single battle fleet) are in a peaceful mood and intend to lead peaceful lives. The Washington Treaty imposed many sacrifices on the American, British, and Japanese fleets, while those of France and Italy were in no way affected, though the future naval activities of the two latter countries were restricted. Only the American, British, and Japanese navies were required to scrap any of their capital ships. The naval armament movement was thus stabilised as far as the five principal maritime Powers were concerned, though the French Government has since made certain reservations (which in conceivable circumstances might react on the policies of the other signatories), and has indicated that when the Treaty expires France will not renew it, at least in its present form. He concluded by quoting the considered opinion of the Navy Department at Washington that the British sea-going Fleet of to-day is smaller than that of the United States, an opinion supported and reinforced by a Committee of the House of Representatives, to which the appropriations for the American fleet for the fiscal year 1927 had been remitted for consideration. He summed up the situation thus :

In this atmosphere of peaceful emulation, the peoples of the two great sea Powers, situated on either side of

the Atlantic . . . whose military forces are contemptible in relation to those of other Great Powers represented on the Council of the League of Nations, are vieing with each other in cutting down their naval expenditure in disregard of what the rest of the world is doing and thinking.

"Naval disarmament," he adds, "can obviously go no further until progress is made in military and aerial disarmament"; and that takes us to the subject of the list of questions examined by the Preparatory Commission for the Disarmament Conference which met at Geneva under the auspices of the League of Nations.

I have already expressed my belief that our foreign policy can now be briefly described as a League of Nations policy, which has the support of a large majority of the people, not only in the United Kingdom, but also in the other nations grouped together under the British Crown, largely on account of the widespread influence of the League of Nations Union. Supporters of the League of Nations are bound by the Covenant to work for reduction of armaments. Under Article VIII. it is the task of the Council of the League to formulate plans for reducing armaments to the lowest practicable point "consistent with national safety and the enforcement by common action of international obligations." These plans have then to be considered by the various Governments. No obligation rests upon any State to act upon them, but once it has accepted them it may not exceed the limits provided without the concurrence of the Council. The plans for limiting armaments will be revised at least every ten years. A conspicuous feature of the present world situation, of which due note should be taken, is that America, the State with the strongest navy, and Soviet Russia, the State with the

Strongest Army, are not members of the League of Nations. America has been represented on the Preparatory Commission at Geneva. Russia has not.

The reference in the League of Nations Covenant to "the enforcement by common action of international obligations," as a reason for maintenance of armaments by States which are members of the League, recalls to one's mind the Protocol, which was adopted unanimously by representatives of over fifty States at the Fifth Assembly of the League in October, 1924. Articles of that Protocol laid upon members of the League certain obligations to take action, under prescribed conditions, against States not belonging to the League. Those who studied the debate in the League Assembly cannot have failed to have formed the conclusion that the majority of the members would have welcomed the use of the British Navy for such purposes. To the ordinary man the Protocol conveyed the impression that "by ratification we should commit ourselves, in advance, to enforce against all nations, defined as aggressors by the League of Nations Council, laws of war at sea which have not yet been established. We should thereby increase our naval commitments beyond limits that can be foreseen, and our external policy would not (in Admiral Richmond's words) 'contribute to supplement the internal efforts to maintain supremacy at sea.'"¹ At this stage we need not go in further detail into the Protocol, which was not ratified. It will be necessary to refer to it again, as it bears directly upon the question of reducing our naval armaments. There are great difficulties in the way of discussing the question of armaments which are maintained for the application of "sanctions" under inter-State authority

¹ Article by the Author in the *Nineteenth Century and After* for November, 1924, before the Protocol was rejected by Great Britain.

at Geneva, because America, not a member of the League, is represented there. So we come now to the naval armaments which are recognised by the League Covenant to be required for "national safety," and to the definite questions to be considered by the Commission. These are to be found amongst the papers that have been circulated to the Council and to members of the League.

The impetus towards a "Disarmament" Conference (really on *reduction* of armaments) was given by a resolution of the Fifth Assembly—the same that approved of the Protocol—in September, 1924. A later opinion was expressed by the Assembly that the question of naval disarmament should be discussed as part of the general question of disarmament to be dealt with by the International Conference proposed in the Resolution of September 6th, 1924, adopted by the Fifth Assembly, and that it rested with the Council to settle the programme. The French, Italian, and Japanese representatives having stated, on behalf of their Governments, that they could not see their way to dissociate the various kinds of armaments—military, naval, and air—and to consider them at separate conferences, a Committee of the Council, presided over by M. Bénès, submitted to the Council itself (on December 12th, 1925) a list of questions to be put to the Preparatory Commission. These questions were compiled from material sent in by delegates of the British Empire, France, and Spain, and they were adopted by the Council for reference to the Preparatory Commission. Those which are germane to the question of reducing naval armaments are the following:—

- I. What is to be understood by the expression "armaments"? (The scope of the definitions required was specified.)
- II. (a) Is it practicable to limit the ultimate war strength of a country, or must any measures of disarma-

ment be confined to peace strength? (b) What is to be understood by the expression "reduction and limitation of armaments"? (Comments follow.)

III. By what standards is it possible to measure the armaments of one country against the armaments of another?

IV. Can there be said to be "offensive" or "defensive" armaments?

V. (a) On what principle will it be possible to draw up a scale of armaments permissible to the various countries? (Suggestions follow about points to be taken into account.) (b) Can the reduction of armaments be promoted by examining possible means for ensuring that mutual assistance, economic and military, contemplated in Article XVI. of the Covenant shall be brought quickly into operation as soon as an act of aggression has been committed? (This opens up the subject of the Protocol and of "sanctions," to which I propose to revert.)

VI. Is it possible to attach military value to commercial fleets in estimating the naval armaments of a country?

VII. Admitting that disarmament depends upon security, to what extent is regional disarmament possible in return for regional security? Or is any scheme of disarmament impracticable unless it is general? If regional disarmament is practicable, would it promote or lead up to general disarmament?

Before making any personal comments on the work faced by the Preparatory Commission it will be well to take note of the views that were expressed by Lord Cecil of Chelwood, the British representative, as communicated by him to *Headway* for March 1926. The main points that he made were that it was vital that the Preparatory Commission should meet not later than last May; that "disarmament" meant reduction and limitation of armaments; that we

were "bound by at least four formal and unequivocal engagements to see this thing through"; that it was "quite obviously in the interest of this country in particular, seeing to what extent we have reduced our own armaments, to do everything to prevail on Continental nations to do the same"; that, broadly speaking, the armament problem must be considered as a whole; that public opinion must declare itself; and that "if the peoples want disarmament, disarmament they can have."

We start, then, with these premises when we consider the question of disarmament as applied to the British Navy. Naval disarmament cannot be viewed as a thing apart. It must be considered in conjunction with military and with aerial disarmament. Soviet Russia (not represented at Geneva) maintains the largest army in the world, and France the largest air force. Great Britain took the lead in naval disarmament after the war, and her navy, which up to that time was far the strongest in the world, is now not as strong as the American navy, taken as a whole, bearing in mind the widely scattered territories and commerce to be guarded. Public opinion in most countries is against war, after the experiences undergone in the last one, and realises that the most effective way to stop wars is to reduce armaments, especially those capable of being used for aggression. In some countries, including Russia, where the largest army is maintained, public opinion has no voice in policy, and the autocrats in power there are avowedly bitterly hostile to the British Empire, and to the principles of government and of policy for which it stands. Air-power, owing to its short radius of action, is at present no substitute for sea-power, as affecting the wide problems of British Empire defence. No comparison can be drawn between the importance of sea communications to Great Britain and to Continental Powers. The British Army

has been reduced to the bare minimum needed to carry out its immense responsibilities, and the safety of sea transport for troops is an essential requirement. Without that an immense army would be needed. The present small overseas garrisons would have to be increased beyond measure if their reinforcement by sea in emergencies was doubtful or impossible. The aggressive employment of so small an Army as ours is out of the question, in view of the relative military strength of other Powers. No example can be drawn from modern history of the British Navy having been used aggressively, and the sphere of action of all navies is limited to the sea. The crowded population of the United Kingdom lives under economic conditions which cause the safety of sea communications to be essential to its existence. Such, briefly stated, are the principal points which bear upon the question of "disarmament" as effecting the British Navy.

Study of the problem of British Empire defence, followed by a careful examination of the agenda for the Preparatory Commission on Disarmament, leads us irresistibly to the conclusion quoted above, that our naval "disarmament" can obviously go no further until progress has been made in military and in aerial disarmament; and to that I would add that, even when such progress has been made, it would be impossible for further reductions to be made in our present naval strength unless a similar reduction, leaving us in the same relative position, were to be made simultaneously by all other sea Powers. In order to bring out clearly, in terms of war-vessels (sufficient *personnel* being assumed), what is meant by the present position, it is only necessary to glance through the latest official "Returns of Fleets," showing the strength at sea of the principal Powers.

In dealing, in general terms, with the subject of naval disarmament, I have so far avoided touching upon details

affecting the nature of the vessels included in "naval armaments." There has hitherto been a tendency to consider them too much in terms of surface craft. Contemplation of official returns brings out the point that, at the present time, America maintains a fleet of submarines about double the size of our own in numerical strength, and Japan a fleet of these vessels practically equal in numbers to our own. France and Italy follow very closely. There is no need to lengthen this chapter unduly to point the moral to be drawn from these statistics. The subject was dealt with comprehensively in an able article by Mr. Hector Bywater, which appeared in the *Nineteenth Century and after* in April 1926. The question which doubtless occurred to readers of that article was not whether our naval disarmament could go further, but whether, in the matter of submarines, it had gone too far.

Reverting to sea-power in its general aspect, I believe that "Glory," mentioned by Professor Callender in his *Naval Side of British History*, from which I quoted early in this chapter, is neither considered nor desired by us in these days. There is no national wish for it, as a factor in our foreign policy, but there is, I believe, a demand for security against foreign interference in our affairs and a firm determination to ensure our safety against aggression. Given these conditions, there is also the intention to do all that lies in our power to secure the peace of the world. The main factor therein used to be the British Navy, in the days now passed away, when sea supremacy was conceded to us by all nations. The present situation will form the subject of the next chapter.

CHAPTER X

THE NAVY AND OTHER NATIONS

FROM our own aspect of the Navy, upon which "under the Providence of God the wealth, safety, and strength of the Kingdom chiefly depend,"—in the words of the Articles of War which for centuries have governed that service,—we must now consider its aspect from the point of view of other nations. We have noticed that, according to the considered opinion of the Navy Department at Washington, the British sea-going fleet of to-day is smaller than that of the United States. To that extent "Neptune's sceptre" has fallen from our hands, as the result of exhaustion by our supreme effort in the years of the Great War. We have also taken account of the point that, although the sea is still all one, it is now divided into spheres of influence, if tonnage in capital ships, standardised at Washington, can be accepted as a measure of such influence. The radius of action of capital ships is limited by their requirements in properly equipped naval bases. The Western Atlantic and the Eastern Pacific are for this reason the American spheres, the China Seas the Japanese. The time seems therefore to have arrived to give some account of our stewardship during the period, covering over a century, when our sea-supremacy on all the oceans was unchallenged.

When I was employed in the Secretariat of the War Cabinet towards the close of the Great War, it came to my knowledge that those who were engaged in British "propaganda" work had discovered that the Germans had been working laboriously to find and to expose examples of the

use of the British Navy, either for aggressive purposes or for the advancement of British at the expense of foreign interests during the previous century. Their search was fruitless. Not a single modern example of such employment could be discovered.

We can also take account of the unselfish use of the British naval and mercantile resources in the Great War itself. I remember reading, at the time when war aims and peace terms were being discussed, a combined statement by representatives of the Allied Powers that the services that had been rendered to them by the British Navy and Merchant Service, caused them to desire that the British should be as strong as possible at sea after the war. It is not necessary to dwell upon the nature of those services, now that so much progress has been made with the official histories of our naval operations, our sea-borne trade, and our merchant navy, but it may be as well to mention a few details which bear upon the point. By the end of the war the equivalent of over 1,000,000 tons of British merchant shipping was being employed solely in the service of France. About forty-five per cent. of French total imports were being carried in British shipping, including in that total about fifty per cent. of the coal and about sixty per cent. of the cereal imports. At the same period about 750,000 tons of British merchant shipping were at the disposal of Italy, carrying about forty-five per cent. of her total imports, and including in that total about fifty per cent. of Italian imports of coal and of cereals. To these services to Allies must be added the vast amount of British tonnage that was allocated to the transport of the American Army to France, and to its subsequent maintenance there (200,000 to 300,000 tons dead weight per month), also to coaling the American Navy in European waters (150,000 tons of bunker coal). Owing to these services to other nations—necessary,

let us admit, to win the war—the British people were subjected to the hardships resulting from having to reduce their own imports to 13,000,000 tons of food, 14,000,000 tons of munitions and war material, and only 3,000,000 tons *per annum* for civil supplies at the end of the war, compared with the 1913 imports of 18,000,000 tons of food and 36,000,000 tons of raw materials for industry, manufactured articles, etc. The point is that it was due entirely to the strength of the British Navy, and to the employment of that strength, that these and other services could be rendered. The question now arises whether, in the light of our peace record for the last century and our recent war record, there is any need for us to give to the world a definite guarantee that the British Navy will be used in the future, as it has been in the past, to curb the aggressive designs of militarist continental States.

The opinion of a large majority of foreign nations about the British Navy and its functions was much in evidence during the year 1924, a decade after the outbreak of the war which tested it so severely. The "Protocol for the Pacific Settlement of International Disputes" was adopted unanimously at Geneva in October of that year by the Fifth Assembly of the League of Nations. In connection with the Protocol, it will be as well for us to keep firmly in view what we have assumed to be the attitude towards the Navy of the nation, which is influenced mainly by a desire to safeguard itself against foreign aggression, and then, given this safeguard, to do all in its power to secure peace all over the world. The Protocol was substituted for a Draft Treaty of Mutual Assistance. That Treaty was rejected by the Labour Government, and there was a consensus of opinion that they were well advised in taking that action. The Treaty cut directly across the principles upon which the League of Nations is based, and it laid unfair and

impossible burdens upon us, by reason of its distribution of "sanctions" by continents. Not only that Treaty of Mutual Assistance, but any similar one, based on an obligation on our part to guarantee the protection of European States without a corresponding effective guarantee of our security all over the world by those States will be highly objectionable. It will endanger the continued existence of the British Empire. This has been realised fully by the other nations grouped in the Empire. All of them, with the exception of the Irish Free State, refused to accept the Treaty.

We must here take note of our existing obligations. The League of Nations Covenant, to which we have subscribed, already binds us (Article X.) to guarantee the territory and the existing independence of all other members of the League against external aggression. In the event of such aggression resulting in war, the Covenant states that it shall be the duty of the Council to recommend to the several Governments concerned what effective military, naval, or air force the Members of the League shall severally contribute to the armed forces to be used to protect the Covenant of the League (Article XVI.). "To recommend," be it noted, not to prescribe.

Considerations of space prevent my dealing as fully as I should like to do with that great British interest, the preservation of the peace of the world, as it would have been affected by the Protocol. I must confine myself almost entirely to the control of the British Navy, and the extent to which the external control under the Protocol would have been likely to affect us, whether we dwell in the United Kingdom or "overseas."

Article XVI. of the League Covenant leaves us unfettered in the uses to which we may decide to put our Navy, paid for by the British taxpayer. Would the Protocol have left

us equally free? I think not. The documents which need study in this connexion are: (1) The General Reports submitted to the Fifth Assembly by the First and Third Committees by M. Politis (Greece), *rapporteur* of the First Committee, and M. Bénès (Czechoslovakia), *rapporteur* of the Third Committee. (2) The Protocol for the Pacific Settlement of International Disputes (text approved by the First and Third Committees and revised by the Drafting Committee), which was submitted to the Assembly on October 1st, 1924, by the First and Third Committees. (3) The *Journal* of the Fifth Assembly of the League of Nations, Geneva, 1924, Nos. twenty-eight and twenty-nine, of October 2-3, 1924, containing the debates of the twenty-fifth to the twenty-eighth meetings of the Assembly. The Protocol itself, as adopted, has been reprinted in a handy form by the League of Nations Union. With all this information available, it is possible to clear the air about the undertakings that were offered by Lord Parmoor, as head of the British Delegation, at Geneva. A report was spread broadcast that he "put the British Navy in pawn" by placing it under the control of the Council of the League of Nations. It is, therefore, due to him to quote *verbatim* from the report in the *League of Nations Journal* the speech in which, in the name of the British Labour Government, he urged the unanimous adoption of the Protocol:

"It had been said, perhaps ironically, that the head of the British Delegation had made an offer of the British Navy to the League. This was an absurd statement, and quite untrue. By the terms of the Protocol such an offer could not be made, for the *Protocol was strictly within the limits of the Covenant* (my italics)."

We must analyse certain articles of the Protocol care-

fully in the light of that statement. Having reminded the Assembly that the Council could only interfere when war, or a threat of war, had occurred, Lord Parmoor added that, even if the worst happened, and not only economic and financial sanctions but also military sanctions proved necessary in a dispute, the Council would have no executive powers, and no troops or men of war would be at its disposal. Every Government would remain free to decide how far and in what form it could best co-operate loyally and effectively in supporting the Covenant and assisting the victim of the aggression.

The use of the word "military," in its widest sense, covering both navies and armies, by the head of the British Delegation, is the first point worthy of our notice. I remember, when engaged in Government office work, being surprised at finding that all telegrams referring to the British Navy and its work which passed through the Foreign Office were classified as "military," and headed accordingly. This practice is objectionable, as it leads constantly to serious misunderstandings. As naval conditions transcend all others in importance to those interested in our security, it is desirable that this wide use of the term "military," swallowing the word "naval" into its maw, should be noticed by a public accustomed to use the word in its narrower sense in conversation. We cannot lay too much stress upon the difference in the conditions attending the use of land and of sea forces in international disputes. Rarely to our advantage; often to our disadvantage, we have been confronted with ignorance of this difference when we have dealt with representatives of European nations, whose fear of invasion by the armies of neighbouring States dominates their whole conception of security. The importance of keeping these experiences before us when we examine the Protocol becomes

still more apparent when we recall to mind the nationality of the *rapporteur* of the Third Committee, which drew up the articles dealing specially with the "sanctions" (including the uses to which the British Navy shall be put). M. Bénès, as we know, was the honoured representative of a country with no sea-coast (though Shakespeare thought otherwise). Acting in all good faith—as he could be relied upon to do—the representative of such a country, surrounded as it is by foreign armies, would incline naturally to a local, rather than to our own world-wide, conception of security.

With this point in our minds, let us check carefully the view expressed by Lord Parmoor that the Protocol is strictly within the limits of the Covenant, especially of the Articles from which I have quoted. Did the Protocol, for instance, leave us equally free to use, or not to use, the British Navy to enforce the decrees or authority of the League Council?

Article XIII. of the Protocol stated that, in view of the military, naval, and air sanctions provided for by Article XVI. of the Covenant and by Article XI. of the Protocol, it would be entitled to receive undertakings from States determining in advance the military, naval, and air forces which they would be able to bring into action immediately to ensure the fulfilment of the obligations in regard to sanctions which resulted from the Covenant and the Protocol. . . .

Article XI. of the Protocol, to which the cross-reference was given, stated that, as soon as the Council had called upon the signatory States to apply sanctions, as provided in the last paragraph of Article X. of the Protocol, the obligations of the said States, in regard to the sanctions of all kinds mentioned in paragraphs 1 and 2 of Article XVI. of the Covenant, would immediately become

operative in order that such sanctions might forthwith be employed against the aggressor.

Those obligations were to be interpreted as obliging each of the signatory States to co-operate loyally and effectively to support the Covenant of the League of Nations, and to resist any act of aggression, "in the degree which its geographical position and its particular situation as regards armaments allowed."

To complete our knowledge of this aspect of the Protocol we must note that Article X., referred to above, defined clearly what was meant by "aggressor" and "aggression," and concluded with an explanation that the Council of the League would call upon the signatory States to apply forthwith against the aggressor the sanctions provided by Article XI. of the Protocol, and any signatory State thus called upon would thereupon be entitled to exercise the rights of a belligerent.

M. Bénès, to explain still more clearly the obligations undertaken by States signing and ratifying the Protocol, as affecting the control of their armies, navies, and air forces, put forward a paper stating that, in case sanctions had to be applied, it was highly important that there should exist some organ required to express an opinion as to the best way in which obligations connected with sanctions could be carried out by the Contracting Parties. This organ, according to the Covenant, was the Council. In order that the Council might effectively fulfil this duty, Article XIII. empowered it "to receive undertakings on the part of States, determining *in advance* the military, naval, and air forces which they would be able to bring into action immediately, in order to ensure the fulfilment of the obligations that arose, in this connection, out of the Covenant and the Protocol."

M. Politis, *rappoiteur* of the First Committee, was still

more explicit. He explained that the new system of the Protocol "went further than the Covenant of the League of Nations." It closed the circle drawn by the Covenant; it prohibited all wars of aggression. No purely private war between nations would in future be tolerated.

I cannot reconcile the above quotations with Lord Parmoor's statement that "the Protocol was strictly within the limits of the Covenant," but the matter is too grave for small verbal distinctions or the splitting of hairs, so I do not lay stress upon that point. Our only object is to ascertain exactly what obligations we should have undertaken as affecting the use of our Navy, if we had ratified the Protocol. Judging by historical precedents, the Protocol is not likely to be the last of its kind, in which we are invited to undertake serious obligations on behalf of other nations, which give nothing at all in return to help us to solve our own world-wide problem of security. I have given the clauses which are germane to this subject, and we must here note that the word "military" is used in its narrower sense in most of the articles of the Protocol from which I have quoted. It applies therein to armies only, naval and air forces being mentioned separately. The point upon which I should like again to lay stress is that to promise *in advance* the use of a national navy against an aggressor entails more serious obligations than a promise to use an army for a similar purpose. Conflicts between armies take place on land, on territory under a national flag. They can be localised. Conflicts between sea forces take place over oceans, which are the property of no nation. Such conflicts cannot be localised, they must be world-wide, like the element on which they are conducted, and this fact added tremendous force to the provision, in Article XI. of the Protocol, which limited the obligations incurred by a signatory

State "in the degree which its geographical position and its particular situation as regards armaments allow."

Further comments on the Protocol and its aftermath must be deferred to another chapter.

Representatives of forty-eight States—Albania, Australia, Austria, Belgium, Brazil, British Empire, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechoslovakia, Denmark, Estonia, Finland, France, Greece, Guatemala, Hungary, India, Free State of Ireland, Italy, Japan, Latavia, Liberia, Lithuania, Luxemburg, Netherlands, New Zealand, Nicaragua, Norway, Panama, Paraguay, Persia, Poland, Portugal, Roumania, Salvador, Kingdom of the Serbs, Croats, and Slovenes, Siam, South Africa, Spain, Sweden, Switzerland, Uruguay, and Venezuela—voted for the Protocol, only the French and British representatives committing their Governments. There were no negatives and no abstentions. This list gives us a measure of the confidence which other nations would be willing to repose in the British Navy as an international police force.

CHAPTER XI

THE PROTOCOL AND OUR SEA-POWER

THE Protocol was not ratified. Even on the plea that we might have helped thereby to maintain a world-peace, we could not undertake, at the bidding of others, to apply sanctions against every nation possessing a sea-coast, if convicted of aggression against its neighbours, or to specify the force which we should be prepared to earmark for such a purpose. It is only necessary to scrutinise the list of States given at the end of the preceding chapter to bring out the point that ratification would have involved an obligation on our part to guarantee the integrity of European States, without a corresponding effective guarantee of our security all over the world by those States. The definite question which had to be determined was whether, after providing for our own security (under Article II. of the Protocol¹), we were prepared to give to the Council of the League, in advance, an undertaking which specified the naval force that we were prepared to use immediately "to ensure the fulfilment of the obligations in regard to sanctions," which would have resulted if we had ratified the Protocol.

Before passing to some other practical aspects of the problem, we must take account of the expression "sovereignty," applied to nations or to States. When this subject was being discussed, Lord Parmoor expressed

¹ The right of self-defence continues, as it must, to be respected. The State attacked retains complete liberty to resist by all means in its power all acts of aggression of which it may be the victim. (M. Politis.)

in *The Times* his opinion that the Sanction Article of the Protocol did not purport to create and did not create any new sanctions. It made operative, under the conditions specified, the sanctions mentioned in paragraphs 1 and 2 of Article XVI. of the Covenant. He did not think that the paragraph of that article, which interprets the obligations undertaken by each of the signatory States, went beyond the provisions in the Covenant, but quite certainly it did not in any way interfere with the sovereignty of a nation as regards the use of its military, naval, or air forces. This was the nature of the allegation so freely made against the action of the British Delegation, and against which he desired to enter an earnest protest.

I have already referred, in general terms, to the difference between "military" sanctions (in the narrow sense), applied in a local theatre of war on land, and naval sanctions, applied on the high seas. I will now be more explicit. There is no generally recognised code of International Law at Sea.¹ Our own interpretation of law at sea has at times been fundamentally different from that of other Powers. The conditions under which we live are different. There was nothing in the Protocol that covered this point. If we had been ready to maintain, over and above the Navy that we need to protect our own interests, a surplus which we could earmark in advance for enforcing the rulings of the League of Nations Council, we must, as a matter of course, have stipulated that a British Navy so employed must act in accordance with law at sea, as interpreted by the British Prize Courts. Writing from memory, I believe that much of our procedure in the Great War was based upon reprisals, rather than upon law. Presumably we might be obliged to

¹ See also Chapter XII. on this point.

follow a similar policy in future. Even if the European Powers consented to the stipulation that we should go on our own way in these matters, there remains the strongest sea-Power, the United States, not a member of the League of Nations. Need I add more on that point, with the experiences of 1914-16 fresh in our minds? In the explanation given verbally to the Fifth Assembly by M. Politis, *rapporteur* of the First Committee, we find that the system (of sanctions) would apply to States which had neither signed the Protocol nor were Members of the League.

A definite question was put to me by naval and other authorities whose views I invited, at the time, in this matter of the Protocol: "Do we get any tangible asset for giving the Council of the League the right to call upon us to use our Fleet?" If the "tangible asset" wished for was an addition to our security from aggressive action directed against our vital interests at sea, or against territories for the defence of which we were responsible in various quarters of the globe, I could not find that any such asset would be gained. If, on the other hand, the tangible asset likely to be attained was the stoppage of all private war (and therefore of aggressive acts, by all and sundry, against ourselves), I had to reply that the theme—which covered the whole Protocol, and not only the portion with which I have dealt—must be developed by abler pens than mine. If the subject was to be treated on a higher plane, and the idea was for us to promote the advantage of other nations, regardless of the consequences to ourselves, the same conditions applied. The main point was that the Protocol, and the obligations involved thereby, should be discussed thoroughly and in detail. I do not think that any one who has studied with care the Protocol itself, the explanation thereof drawn up by the League Committees, and the discussion thereon

by the Fifth Assembly at Geneva, can have failed to gather an impression of hurry and rush, which was undesirable in an undertaking of such far-reaching importance.

The parallel was drawn at Geneva between the processes which have made for the attainment of domestic peace through the establishment of and obedience to national law, and similar processes applied in international affairs. Professor A. F. Pollard, in his paper on "The Lesson of History," as applied to the League of Nations, reminded us of the effect of the attention that had been paid to practical matters of detail upon the establishment of British laws, and upon obedience thereto. He traces them back to the issue to possessors of land in the twelfth century, of writs *de pace habenda* at a time when "there was hardly a national government at all; there was no standing army at the Crown's disposal, no police, no public opinion; and the combatants were as much addicted and inured to the arbitrament of the sword as nations are to-day." It took centuries, as he points out, for the legal reforms to bear their political fruit, and he pleaded that the surest way of solving the problem before us was not to force the pace. We cannot bind nations into an international State nor deny to peoples the freedom to fashion their own future. If we go so far as to bind them not to attack their neighbours, we must do so on the ground that war and its apprehension is itself destructive to liberty, and that peace is the greater franchise.

Whatever may have been the merits of the Protocol as a whole, forcing the pace was distinctly a feature of Article XIII. read in conjunction with Articles X. and XI. To the ordinary man, unskilled in legal niceties of expression, it conveyed the impression that by ratification we should have committed ourselves, in advance, to enforce against all nations defined as "aggressors" by the League of

Nations Council laws of war at sea which have not as yet been properly established. We should thereby have increased our naval commitments beyond limits that could be foreseen, and our external policy, by so doing, would not (in Admiral Richmond's words) "have contributed to supplement the internal efforts to maintain supremacy at sea." Lord Cecil pleaded for consideration of such questions from the national point of view, with the help of the Dominions. It is in that sense that I have used the expressions "we" and "our" in this chapter.

Why, it may be asked, devote so much attention to the Geneva Protocol, seeing that it was not ratified? The reply is that it gave a unique opportunity for foreign nations to express a collective and representative opinion about the value of the British Navy to them as an inter-state police force, helping to maintain a world-peace. Police, however, are supported from funds provided by the ratepayers in whose interests order is maintained, whereas the Navy devises its support from the tax-payers of its own nation, and they were of one mind on the subject. The Navy, for which they paid, must always and unconditionally be at the disposal of the Government elected by their votes. Foreign nations, really desiring a peaceful solution of disputes between States, could take heart from the knowledge that a general peace is essential to our prosperity as world-traders, because trade is dependent upon confidence and upon security. Some other nations, it may be, hold different views. To a few, territorial conquest may have its attractions in the real or fancied interests of the peoples concerned, or of their rulers. Others, perhaps, contemplate the substitution of force for fair economic competition in the world's markets. This, according to Count Hertling, German Chancellor in 1918, was Germany's war-aim "from the

beginning." To others, notably to the Soviet Government of Russia, the idea appeals of interfering with the internal affairs of other countries, especially with a view to breaking down the social, political and economic foundations on which our own strength and stability rest. To all peoples, under whatever systems of government they may live, the security of sea communications is all-important, and it is constantly becoming more vital as populations increase, and as nations become more dependent upon each other. For security of sea communications the British Navy stands. To whom, then, should sea-power, defined as the power to keep sea-communications open for all nations in peace, and to obstruct them for nations convicted of aggression in war, be entrusted?

To those of us who had the misfortune to be taught world-geography upon maps, drawn on Mercator's projection, instead of on globes that give a true representation of the distribution of land and sea, it comes as a surprise to discover that the British Islands are situated at the exact centre of the bulk of the land of this planet, while New Zealand occupies a similar centre to the largest area of sea. If one turns a globe round so that the British Islands are in the centre of a hemisphere, the point will be grasped.¹ In that hemisphere will be found all the land in the world excepting the Malay States, the Dutch East Indies, Australasia, and the southern end of South America. Although we inhabit a land lying wholly in the sea, we dwell at the precise centre of all the land of the earth, as Commander G. S. Bowles (son of Thomas Gibson Bowles, who did so much to keep the importance of sea-power to the front) explains in his *Strength of England*. No other spot upon the globe (he adds) either fulfils, or

¹ See world-map (Frontispiece).

can ever be made to fulfil, those two conditions. Turn the globe as you will, contrive and consider as you please ; in the end the hard geographical fact will remain that England, of all the communities of men, has the sea-centrality of the world. And, having it, she must ever retain it. For the shape and extent of the land-hemisphere of the globe are now and for ever fixed. While this permanent centrality among the nations of the earth is not a matter of doubt, he deprecates the idea of its being treated as a matter of pride, " for it certainly cannot be said to be due to any superior quality or merit in the inhabitants."

There must be some underlying cause for our extraordinary power of recuperation, compared with European nations, during the past few years, in spite of our supreme sacrifices in the interests of others during the great war, followed by staggering blows which labour disputes have dealt to our trade, whenever it has shown signs of regaining its position in world-markets. No intelligible explanation of this recuperating power having hitherto been forthcoming, we cannot afford to cast this one aside without thinking it over. The implication is that if we do not make proper use of our geographical position, we must hand the responsibility over to some other Power, working from the same world-centre. Commander Bowles delves into the dusty sources of history to discover whether the particular set of attributes which distinguish our economic strength have ever before been found together in any communities of men. He finds four attributes ; a teeming population at the political centre, an overwhelming foreign trade, great riches, and widespread political power. These sources of strength have, he points out, existed singly or in pairs in many States in many parts of the world, but as far as history can be taken as a guide, the whole four have

only been combined at four spots on the surface of the globe, first on the lower waters of the Tigris and the Euphrates, then in Egypt, then in Rome, and finally in England. One of his critics has suggested that he should have added Crete, in the light of recent discoveries, but with that exception he explains fully his reasons for excluding other apparent precedents in wide-spread dominion—Persia, Phoenicia, Carthage, Macedonia, China, the Aztecs of Mexico, the Incas of Peru, Byzantium, the Holy Roman Empire, the United Provinces of Holland, and so forth. He points out that the four Powers which emerge from his four tests all lay upon the sea, and that they also resembled ourselves in “sea-centrality,” their headquarters being situated at the centre of the sea communications of the trading world, meaning the portion of the world that, in their time, was accessible to their traders. With discovery of new lands, we find that this centre of gravity of sea-trade has gradually moved westward—from Babylon to Egypt, to Rome, and thence to the British Isles, where he maintains that it must remain, now that discovery has been completed.

The author's arguments are too strong to be ignored. No other people, he explains, inhabit or ever can inhabit a small, densely crowded, island approachable by outside trade solely across the sea, and standing for ever at the permanent crossing-place of the main roads of the world. No other people have, from the mere accident of their position in the world, literally no choice as to whether or not they will maintain in all circumstances the power to remove from the surface of the sea obstacles offered to the steady movement of their own trade. That power, at least, they must at all times retain, or resign themselves to the mercy and control of those who have it. Nor have they any choice, merely from the point of view of their

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own interest, as to whether or not, in time of peace, they will use their necessary peace-time control of sea-routes to maintain them for the movement and traffic of all nations. A vast proportion of their own riches and strength derives from the sea-movement of other peoples in every quarter of the globe. Their interest is directly bound up with every increase of commerce everywhere. All commerce must at last feed sea-commerce, and of sea-commerce, by whomsoever conducted, there is very little that brings no form of profit to them.

CHAPTER XII

SEA-FORCE AND SEA-LAW

WE have been confronted at various times by hostile foreign propagandists, with the accusation that British Navalism is a force similar in all respects to the Prussian militarism which brought about the unprovoked violation of Belgian territory, and ultimately the collapse of the German Empire. Will Navalism lead to our own collapse? History teaches us that both land and sea-forces have been used as instruments for breaking down the opposition of hostile nations. Militarism has used the methods of indiscriminate slaughter regardless of age or sex, burning down dwellings, loot, enslavement, violation of women, torture, and other methods, designed to terrorise civil populations in order to gain the objects in war. Sea-power has applied the method of slow starvation. The analogy is between a sea-power which (acting within the limitations of sea-law) puts slow pressure upon a nation, giving the option of surrender at any time before that pressure becomes intolerable, and a lawless militarism which pleads military necessity to violate neutral territory, plundering, ravishing, burning, slaughtering, and destroying, while defying all international covenants—"transactions which consist merely of words . . . which are very inexpensive, chiefly the means with which the wily one takes in those he practices upon" (Clausewitz). Here again we find a well-drawn analogy in *The Strength of England*. We are there reminded that the function of the sea has been to control the military violence of the land (as in 1914-18),

and that upon the use by England of her strength depended then, as it still depends to-day, nothing less than the whole future peace of Europe and of the world. The two conceptions of war differ completely. They differ in immediate object and they differ therefore also in method. The immediate object of war on land is destruction, and its method accordingly is violence: the immediate object of war at sea is deprivation, and its method is preservation and law.

In view of what has been written in the preceding chapter about our objections to the Protocol, the question will naturally be asked: To what law does the author of *The Strength of England* refer? To this he has himself replied to that Common Law of Nations at sea which the Prize Courts administer—as distinguished from the laws made, on the plea of reprisals or otherwise, by national executive Governments—there is in an Executive Government in war-time no power, such as the [British] Foreign Office repeatedly claimed [in the Great War] to give orders to Prize Tribunals, either by the issue of orders-in-Council or otherwise. . . . Still less is there in such Executive Governments a lawful power to evade, by new and vaguely constituted departmental Committees, the whole function of the Prize Courts in administering the Laws of War at sea as between their seamen and neutral traders. To many of us this throws a new light upon the situation, and before condemning Foreign Office methods out of hand it will be as well to recall the circumstances which led to the reprisals (for which the justification of the law of Nations at sea was not claimed) in the Great War.

Before the war the British policy was to put faith in international obligations, and for many years we opposed proposals for food to be made contraband of war, either conditionally or otherwise. Immediately after the outbreak of war in August, 1914, our opponents introduced a

new factor, forbidden by international agreement, into sea warfare. They laid mines secretly, outside territorial waters, in highways of sea traffic. We retaliated, but, for the sake of neutrals, we advertised, in October, 1914, the positions of our minefields. The Germans continued to lay mines, and on November 3rd, 1914, we published an announcement describing the whole of the North Sea as a military area on the plea that mine-laying under a neutral flag and other similar measures were our enemy's methods of conducting sea warfare. After explaining the dangers to merchant shipping "from mines which it has been necessary to lay and from warships searching vigilantly by night and day for suspicious craft," the Admiralty announced in the Press that "from November 5th onwards . . . all ships passing a line drawn from the northern point of the Hebrides through the Faroe Islands to Iceland do so at their peril. Ships of all countries wishing to trade to and from Norway, the Baltic, Denmark, and Holland are advised to come, if inward bound, by the English Channel and the Straits of Dover. There they will be given sailing directions which will pass them safely, so far at least as Great Britain is concerned, up the East Coast of England to Farn Island, whence a safe route will, if possible, be given to Lindenaes Lighthouse."

Admiral Scheer described this as ensuring that "free trading of neutral merchant vessels on the North Sea was made impossible when that was declared to be in the 'war zone,' because every ship that did not follow the instructions of this declaration was exposed to the risk of destruction." The first risk of destruction to such vessels was, as we have noted, from German mines laid in the fair-way of shipping, and the Admiralty declaration of a military area helped neutral vessels to avoid such dangers, and the risks resulting from the counter-measures applied by Great

Britain. Up to the time when the German Government commandeered all imported food supplies (the inference being that they were destined for the Army), neutral vessels could carry food to the German civilian population; the Admiralty announcement reduced the risks to such vessels from the minefields, and a large section of public opinion in England was indignant with the Government, or rather with the Foreign Office, for not giving the Navy a free hand, meaning thereby not at once reversing the policy which we had adopted when we ourselves were neutral in previous wars.

The next step was taken by Germany. In February, 1915, all the seas surrounding Great Britain were declared to be a war zone. As early as November, 1914, Admiral von Pohl, commanding the High Seas Fleet, had represented to the Chief of the Naval Staff that as England completely disregards international law in her actions, there is not the least reason why we should exercise any restraint in our conduct of the war, and he recommended ruthless U-boat warfare: A U-boat cannot spare the crews of steamers, but must send them to the bottom with their ships. Ethical considerations—called by Admiral Scheer almost entirely a question of politics—were overcome, and on February 4th, 1915, von Pohl, who by that time had been made Chief of the Naval Staff, issued in the *Reichsanzeiger* a notice establishing round Great Britain a war zone of a different nature from the military area proclaimed by the British Admiralty. The waters round Great Britain and Ireland, including the whole of the English Channel, are herewith declared to be in the War Zone. From February 18th, 1915, onward, every merchant ship met with in this War Zone will be destroyed, nor will it always be possible to obviate the danger with which the crews and passengers are thereby threatened.

We know, from information since supplied by Admiral Scheer, what von Pohl meant by being threatened with danger (see the extract from his recommendation of November, 1914, quoted above). Von Pohl's notice was issued with the consent of the German Government, which sent a memorandum to the neutral and belligerent Powers affected.

This lengthy introduction has been necessary. Our opponents' case, constantly repeated, was that the U-boat brutalities were the logical reply to our strict blockade, which brought German women and children to the brink of starvation. The true facts were as follows: The first unrestricted U-boat campaign was publicly decreed on February 4th, 1915. It was not until March 11th in that year that we took the first step towards trying to make the blockade really effective, and we undertook that measure *as a reprisal*. Until the Germans had issued instructions, which amounted to an order to the U-boats to drown the crews and passengers in merchant ships, our Government had abstained from straining certain international agreements which put a brake upon the full effect of sea-power. After the issue of von Pohl's note of February 4th there was no further hesitation. You cannot fight in gloves against an opponent using his bare fists.

The Order in Council which was issued by the British Government on March 11th, 1915, prevented merchant ships from sailing to German ports, from carrying goods destined for Germany to ports in other countries, from carrying goods from German ports, and from carrying goods of German origin from ports in other countries. That was the first step taken to establish a proper blockade,¹ though it was not called by that name. The Germans

¹ For comments in *The Strength of England* upon its illegality and inadequacy, see p. 91.

at the time had not enough U-boats to make their threats effective. As a matter of policy they made concessions to neutrals when they found that certain incidents, such as the killing of the *Lusitania*'s passengers, were likely to raise up new enemies against them. But, two years later, on February 1st, 1917, they again proclaimed unrestricted U-boat warfare, this time with greater resources for its application. We know now that this policy, which brought America into the war, and sounded the death-knell of the German Empire, was again brought into force by a Chief of the Naval Staff (von Holtzendorff) in a memorandum dated December 22nd, 1916, in order to "break England's back," whereby "the war will be decided at once in our favour. England's mainstay is her shipping, which brings to the British Isles the necessary supplies of food and materials for war industries, and ensures their solvency abroad."

We can look back, then, upon a war to the death between ourselves and our opponents, in which each nation ultimately tried to choke the life out of the other, Germany applying to sea warfare the destructive and lawless attributes of land warfare. At first, in spite of the violation of all international agreements and moral obligations by our enemy on land, we tried to conduct the war at sea in accordance with precedents and conventions. Germany laid mines in the highways of sea traffic. We retaliated, and, at the same time, we volunteered a safe conduct to neutral shipping willing to conform to certain conditions. Germany proclaimed unrestricted U-boat warfare on February 4th, 1915. We retaliated by our Order in Council of March 11th, 1915. Germany again proclaimed unrestricted U-boat warfare on February 1st, 1917. We retaliated on February 16th, 1917, with another Order in Council, describing the latest German proclamation as

being in flagrant contradiction with the rules of international law, the dictates of humanity, and the treaty obligations of the enemy, and we assumed that all ships met with at sea on their way to or from a country affording means of access to Germany were carrying goods destined for the enemy, or of enemy origin.

There is no need to go into detail about the methods employed to make the blockade of Germany really effective, such as the control of jute, the only material from which strong enough bags can be made to stand the rough handling of certain classes of merchandise on wharves and quays. The control of bunker coal. The control of voyages and destination of merchant shipping. The establishment of "black lists" of individual trading firms. "Rationing" certain neutral countries to prevent the export of surplus imported stocks to Germany; and so on. The point is that, in our reprisals, we went beyond the former conception of blockade, which contemplated no restrictions being imposed upon an enemy's trade through neutral countries, excepting in contraband of war. This policy was held to be justified, not as being in accordance with international morality, but solely as a reprisal. Admiral Scheer's comment was that: "Anyone who wished to defend himself by means of remonstrances or protests in law was foredoomed to defeat owing to this *brutal policy of might*; but, unfortunately, this was the form our own (German) policy had taken."

War is an unpleasant business, at the best, and there are no signs that it is likely to become less unpleasant. The effect of developing industries, and of crowding industrial nations into densely populated areas drawing supplies of food from elsewhere is not likely to reduce its unpleasantness, and the effectiveness of sea-power against such nations is likely to increase. Whether, in its appli-

cation in future wars, it will be possible to avoid reprisals as replies to transgressions of international covenants, may depend upon whether some super-State authority, capable of enforcing its decrees, can be established. Commander Bowles argues in his *Strength of England* that the British Prize Courts provide that authority: "It is essentially characteristic of Courts of Prize that they administer without fear or favour, not the particular Law of one Nation, but the Common Law of all Nations." Quoting examples, he maintains that from the first Order-in-Council of August 20, 1914, to that of March 30th, 1916, immediately preceding a Judgment of the Judicial Committee of the Privy Council on the celebrated *Zamora* case, the British Executive Government acted illegally in presuming to state or to alter the principles of Law guiding the Prize Courts. It is impossible to do full justice to his arguments here. He holds that, if we had relied upon the full and lawful processes of war at sea, we should have so exhausted our opponents as to end the military struggle on land within six or eight months, instead of four and a quarter years. He is strongly opposed to the acceptance of the Declaration of Paris (1856) or the Declaration of London (1909) as being legally binding, for reasons given, and, generally speaking, he advocates strengthening, rather than weakening, the application of the tremendous and increasing force of sea-power, not only for our own advantage, but for the good of the world in general. He takes full account of the notorious leakage during the Great War, through neutral countries, of the sea-borne supplies which enabled the Central Powers to hold out for so long, causing so much distress at the time, and the subsequent social, economic and financial disturbance which is still so severely felt all over the world. He brushes aside the argument that we took the course

that we pursued in deference to American opinion : " the whole system, unlawful as it plainly was, had been set up chiefly through fear of what the United States of America would do if their shipping to Scandinavia were submitted to Prize Courts and the Law. In vain the United States Government had explained throughout that their objections were not to Prize Courts and the Law, but to the proceedings of the wholly arbitrary system set up by the English Foreign Office to circumvent both." He leaves unsolved the difficult problem of devising legal machinery, with force behind it, to enforce penalties or reprisals against belligerents who take the initiative in defying " the Law of Nations, which, from its own very nature, is a fabric necessarily unalterable by any one nation acting alone. It requires for its permanent alteration nothing less than the formal concurrence of all the civilised nations on earth." For the distinguishing principles of the Common Law of Nations at sea, which the Prize Courts in fact administer, he refers us back to the eighteenth century, to the memorial to George II. in 1753 by the legal authorities of the day, as elaborated in 1794 by Sir William Scott (afterwards the great Lord Stowell) and Sir John Nicoll in reply to an enquiry by the American Ambassador about the principles and practice of Prize Tribunals. " This Memorial, as well as the detailed answer of these two famous jurists, has ever since been acted on by the Prize Courts of the United States of America."

That seems to be as far as the question of Sea-Force and Sea-Law can be carried at the present time. In previous chapters we studied the opinion of our Allies upon the value of our sea-power to them before and during the course of the Great War ; we also, by examining the debate on the Geneva Protocol of 1924, obtained some idea of the amount of confidence which most foreign nations would

be likely to repose in the British Navy as an international police force. We also took note of the disarmament movement, as far as it has been discussed at Geneva. Earlier chapters were devoted to the Navy as a vital factor in our existence. To that subject we will now revert, taking some comfort from the differences that we have discovered between "navalism" and "militarism."

CHAPTER XIII

SEA-POWER AND AIR-POWER

CONCLUSIONS

IN 1914, when the Great War began, aeroplanes had flown at 112 miles per hour compared with recent records of 278 miles per hour, possibly since exceeded. They had lifted weights of 1,500 lbs., compared with over five tons at present. They had reached heights of 19,600 feet from the earth's surface, compared with 40,783 feet. They had spent sixteen hours in the air without alighting, compared with over forty-five hours, and they had covered non-stop distances of 1,050 miles, compared with a recent record of 2,940 miles which has, I believe, been since exceeded. The figures for airships are equally striking. Their maximum speed has risen from fifty miles an hour to seventy-six. The weight lifted has risen to eighty tons, gross, or forty tons, net. The height reached in 1914 was 9,700 feet. I have no record of the latest figure. They had spent thirty hours in the air without alighting, compared with nearly eighty, and they had covered 960 miles, compared with over 5,000. It will, of course, be realised that these record performances have not been combined in any single type of aircraft, either of the heavier or the lighter-than-air type. They are given here to mark the rapid progress in aviation since the problem of human flight was solved by scientists and aviators. How does this affect our sea-power?

The security of the British Isles from invasion by continental armies, since the time when our sea-centrality

was established by Transatlantic discovery and development, has been one of the most potent factors in the stability of our sea-power. To readers of the portion of this book devoted to Commander Bowles's theory of the movement of the sea-centre of discovered land, the thought may have occurred that there was no apparent reason why this sea-power should have been held for so short a period by the Dutch, passing in the seventeenth century to ourselves. The reply seems to be that the land frontiers of Holland were open to invasions, from which the British sea-frontiers were immune, as they have remained until the present day. How has aviation altered the situation? That "we are no longer an island" is a phrase popular with platform orators, who disregard geographical definitions and would have us believe that the Navy is a wash-out because the French, the strongest nation in the air (and the only one within bombing range of London) can drop explosive and poison-gas bombs upon us in large numbers from the air. That for this reason it is of no avail to persevere in our determination to keep open, as we have endeavoured to do for three centuries, the sea-traffic all over the world, upon which our Empire has been, and still is founded. Though dependent upon repetition, rather than upon reason, the influence of this theory has become so widespread that no book on the present-day Navy, on its life and its functions, would be complete if it ignored this view of our defence problem. The subject can thus be summarised.

Sea-power and air-power must share between them the responsibility for averting the invasion of our island by hostile armies; while upon air-power falls the responsibility for defending the population against such air-attacks as may be believed to come within the range of probability. As a measure of that probability in the present, or in the

future as aviation develops, we can take note of the policy of the successive governments which have established our important and influential Air Ministry to deal with such situations. That branch of responsibility lies outside the limits of our subject. The Navy must leave such matters to the Air Force.

Progress in aviation has not, in any way, reduced the vital importance to us of our sea communication. Its only influence upon the problems to be faced by our Navy has been to make their solution on the whole more difficult. Fleet Air Arms, as we have seen, have widely extended the range of vision, and to some extent of the striking power, of our sea forces, but against that must be put the need to provide against the possible activities of large formations of foreign aeroplanes which might operate, within their comparatively short radius of action from their home aerodromes, over the seas that wash the coasts of their countries. Then, again, the need to defend certain of our naval bases against air attack adds a new factor to the problem, and causes extra expenditure on local defence. On the whole, air-power can be described as an aid to sea-power, never likely to be a substitute for it. It can better be described as its supplement, seeing that "the sea, apart from being at present the sole and only road between the land masses of the globe, is still in fact incomparably the widest, longest, and cheapest of all the agents of transport upon the earth." So writes the author of *The Strength of England*, adding that the possibility of a serious bid by the air for the gigantic business of carrying on the heavy transport of the world is non-existent at present, and not very likely to exist in future.

FINAL CONCLUSIONS

HOW, then, shall we sum up the whole matter? Air forces cannot replace sea forces. They cannot perform their world-wide functions. After our glimpse into the life in our sea-going Fleet, finding the dwellers therein changed in many respects of late years, but unaltered in spirit, we investigated the trend of thought on shore, both at home and abroad, about the functions of our Navy. We found that the well-known *cliché*, "The sea is all one," does not now hold good, if applied to what is loosely described as its "command," provided that we have been rightly advised by our experts that such command depends upon the presence of leviathan battleships. The radius of action of such vessels is limited by their need for suitable bases, properly equipped, and so distributed as to fulfil the leviathan's requirements. Judged by that test, we cannot aspire to command the sea as a whole. The Western Atlantic and the Eastern Pacific are "commanded," in that sense, by the battleships of the United States of America; the China Seas by those of Japan. Malta, at the centre of the "middle sea" of the Eastern Hemisphere, is our first-class naval base most distant from the British Isles, where we have located the nodal point—the sea-centre—of communications between the great land masses of the earth's surface.

In sea-centrality we have found the solution of the mystery of the permanence of our economic stability, which has been a puzzle to so many. It has lasted for generations, and it is likely to do so for generations to come

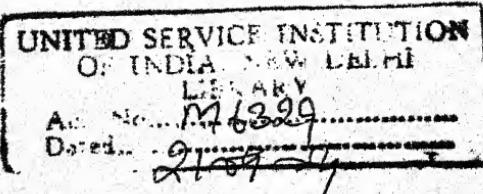
if we can only realise the nature of the foundation upon which it rests, and if we are not led astray by false prophets or by propagandists. The sure foundation upon which our prosperity is built is a sufficiency of sea-power to protect free sea-traffic from all that tends to obstruct its flow in time of peace. And, if wars should come, to save not only ourselves, but the whole human race, from the persistent violence, protracted devastation, and prolonged horrors which are the attributes of land warfare. In so doing to apply to "aggressors," to deliberate breakers of the peace without full and sufficient cause, the more merciful method of deprivation, which is the attribute of sea-power when in active operation. Lawless devastation and destruction, both on land and sea, were marked features of the world conflagration of the years 1914 to 1918. Its embers are still smouldering. By appealing to Prize Courts, which have an international status, it is easier to keep navies than it is to keep armies within the bounds of international laws and covenants.

No nation is fitted to be entrusted with the responsibility for wielding the weapon of world-wide sea-power without wide experience and a broad outlook: "The universality of the Englishman's experience and outlook—quite as marked a characteristic as his insularity—is due to his command of the ocean which has for more than three centuries carried him as explorer, trader, and colonist to every shore in two hemispheres."¹

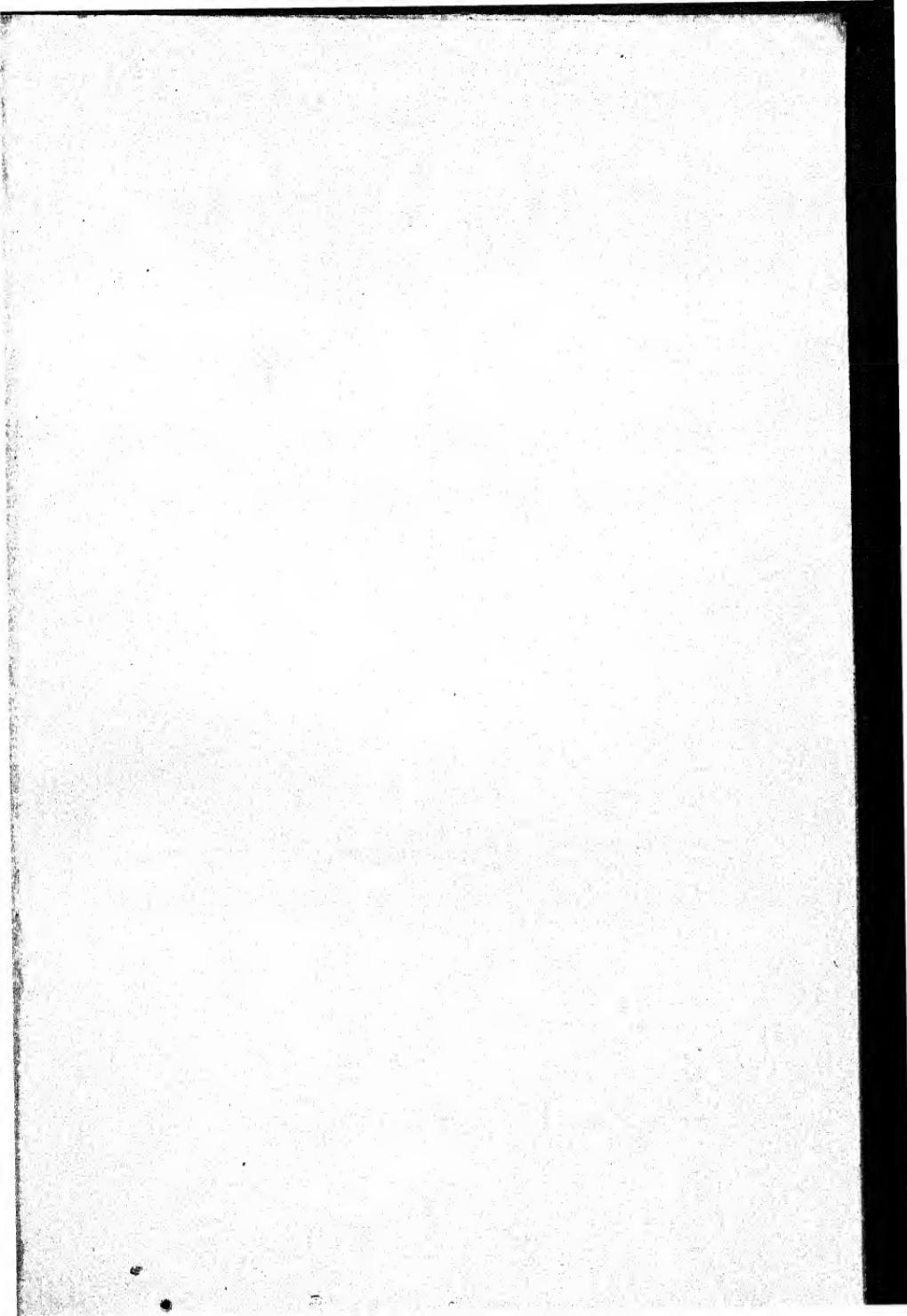
Our Navy is well worthy of such a nation. Let us hope that the nation, in years to come, will prove itself to be equally worthy of a Navy that remains our all in all because, by its agency alone, we are free to solve our own political and economic problems by our well-tried methods

¹ *History of England.* G. M. Trevelyan.

of evolution, rather than by revolution, bloodshed, and insane destruction of all that is best in civilisation. Such are the points that have struck the author of this book, after having derived much happiness and encouragement by a visit to the Fleet, followed by some pondering over the functions of our "Navy of to-day."



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